

SECTION 3.5

Leesburg, VA

SECTION 3.5

DATA PRESENTATION

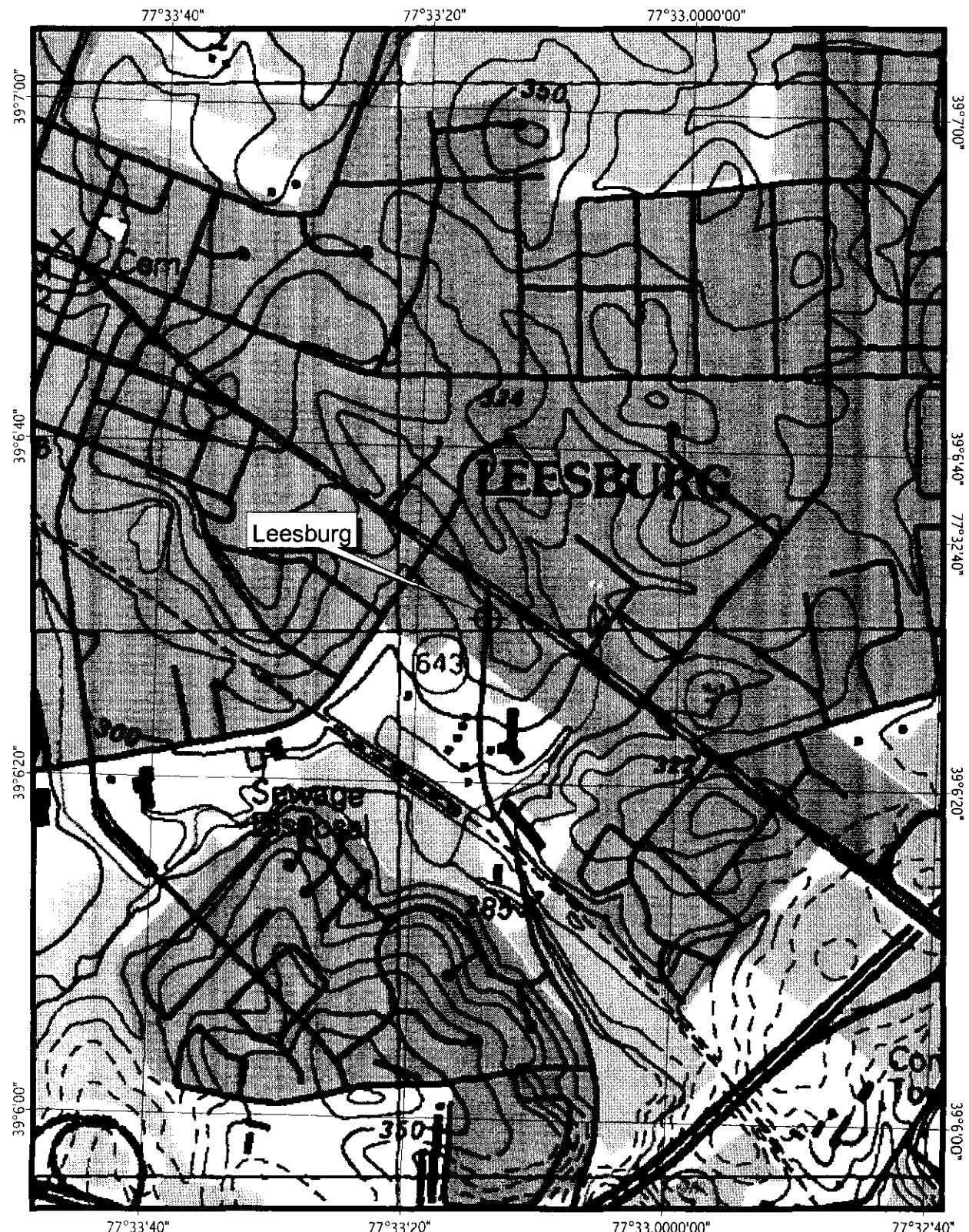
The following section contains the tables, site photos, and spectrum photos pertaining to the site location measured.

3.5 XM Radio – Leesburg, VA

- o Table 3.5-1 presents a site data sheet including all pertinent site information.
- o Figure 3.5-1 . contains topographic map denoting the test location throughout the measurements.
- o Figures 3.5-2 are the photographs depicting the test site.
- o Figures 3.5-3 through 3.5-8 are the RF spectrum photographs depicting the interference environment at the test site.

TABLE 3.5-1
MEASUREMENT SITE DATA SHEET

1. SYSTEM NAME:	XM Radio
2. CITY AND STATE:	Leesburg, VA
3. SITE IDENTIFICATION:	Rte. 7 & Sycolin Rd
4. COORDINATES: (NAD 1983)	LATITUDE: 39° 06' 33.6" N LONGITUDE: 77° 33' 14.5" W
5. SITE TYPE:	Suburban
6. MEASUREMENT DATES & TIMES:	January 21, 2002 1000-1130

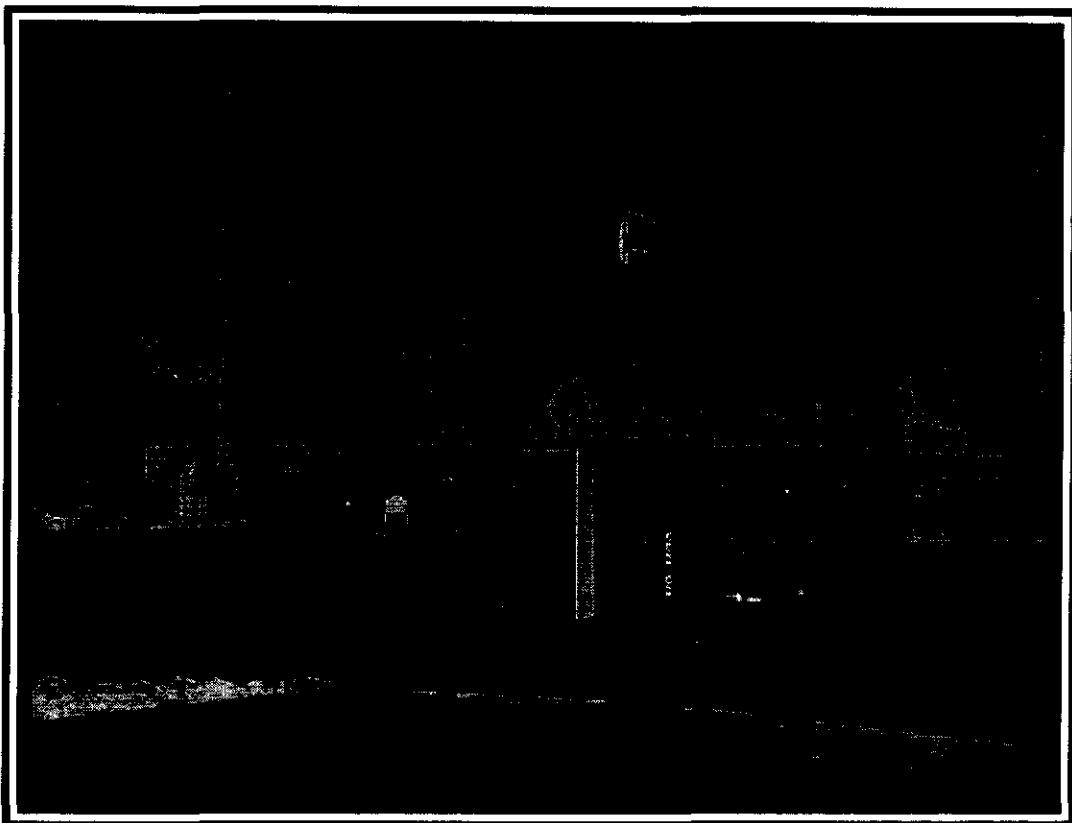


XM RADIO

FIGURE 3.5-1



North



East

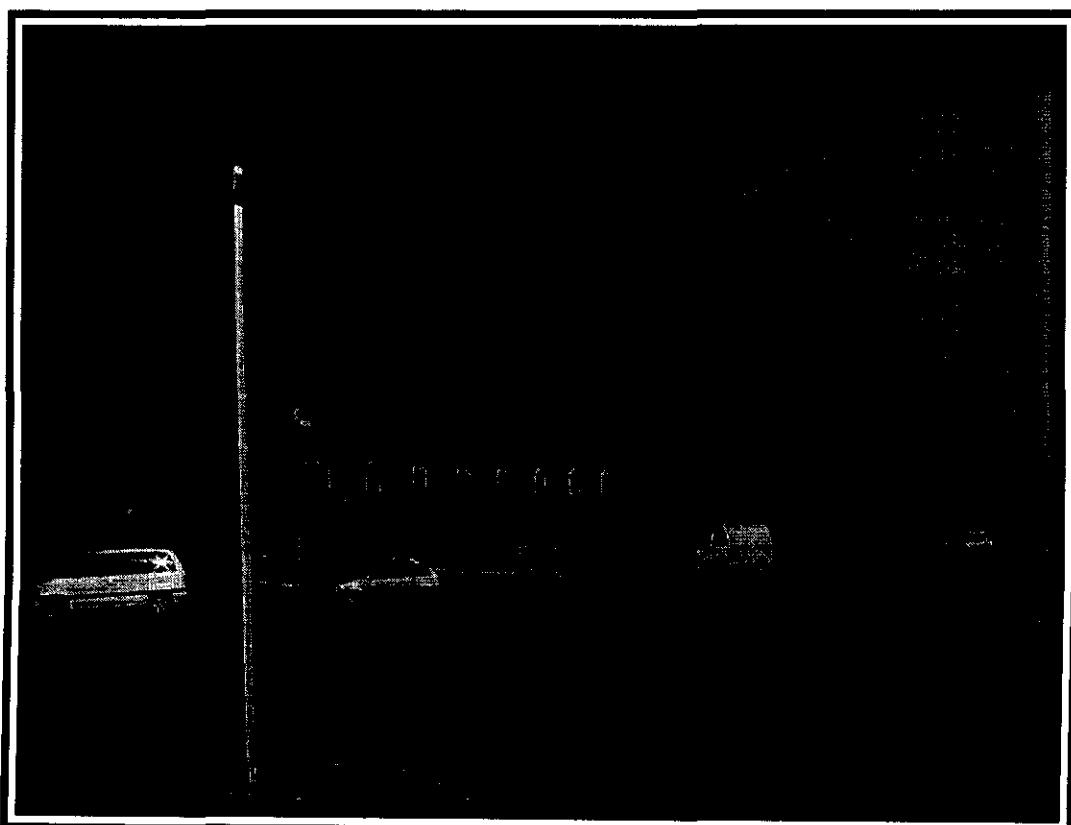
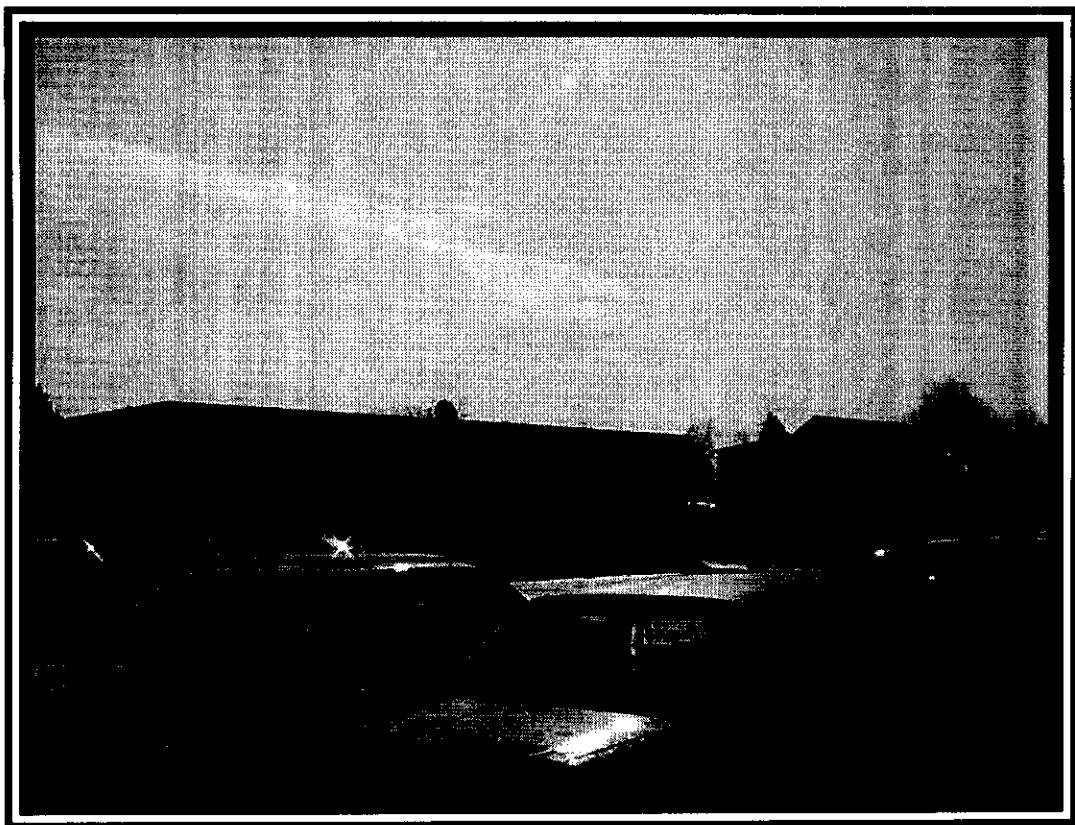


Figure 3.5-2 Measurement Site Photographs

South



West

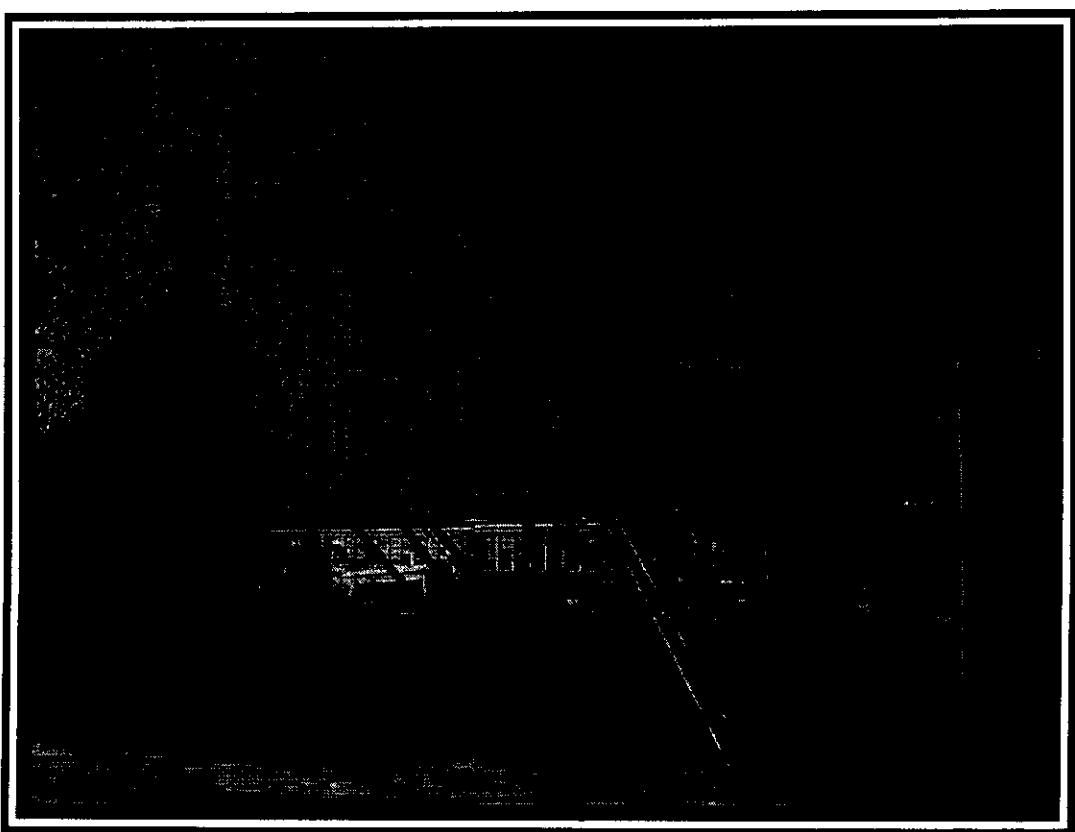
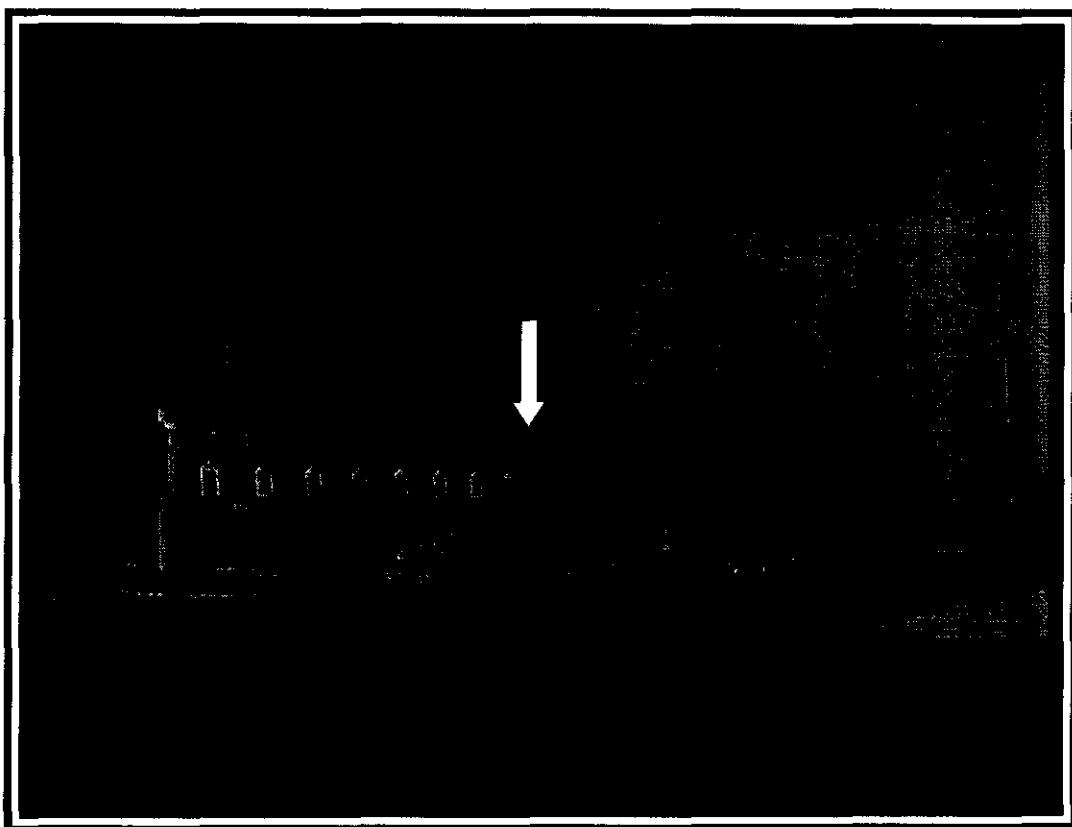


Figure 3.5-2 (cont.) Measurement Site Photographs

Az 96°



Az 296°



Figure 3.5-2 (cont.) Measurement Site Photographs

Az 317°

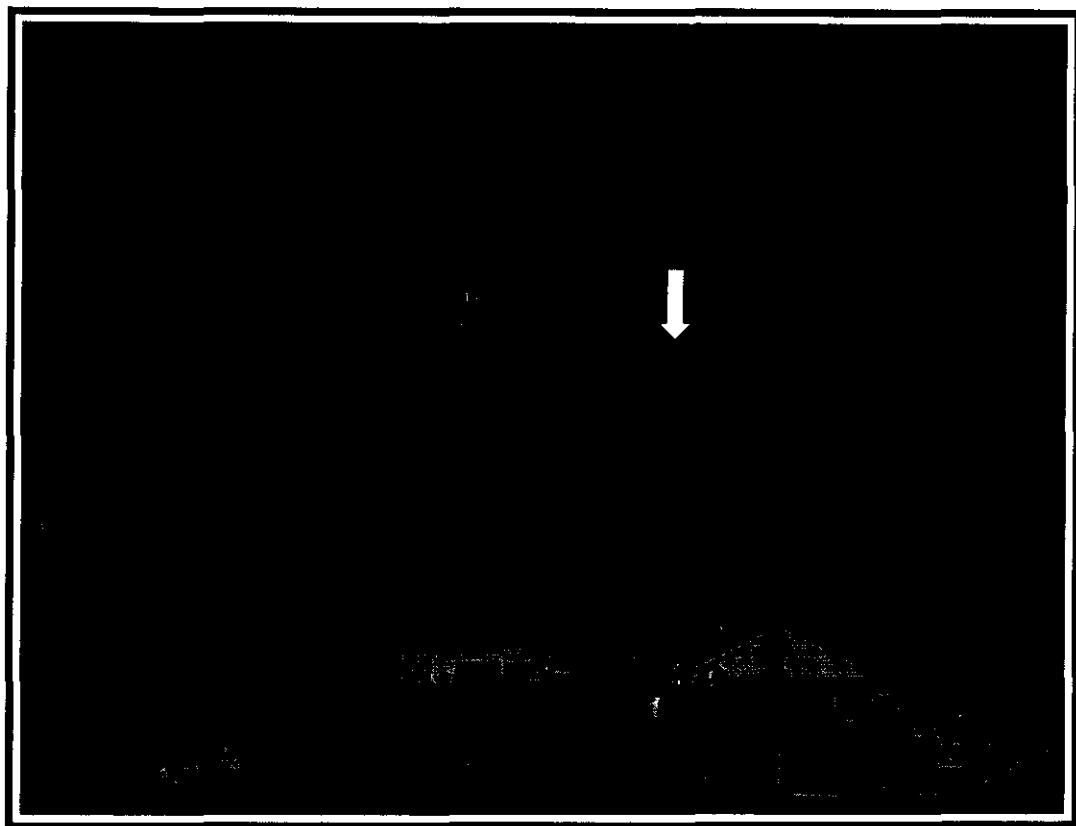


Figure 3.5-2 (cont.) Measurement Site Photographs

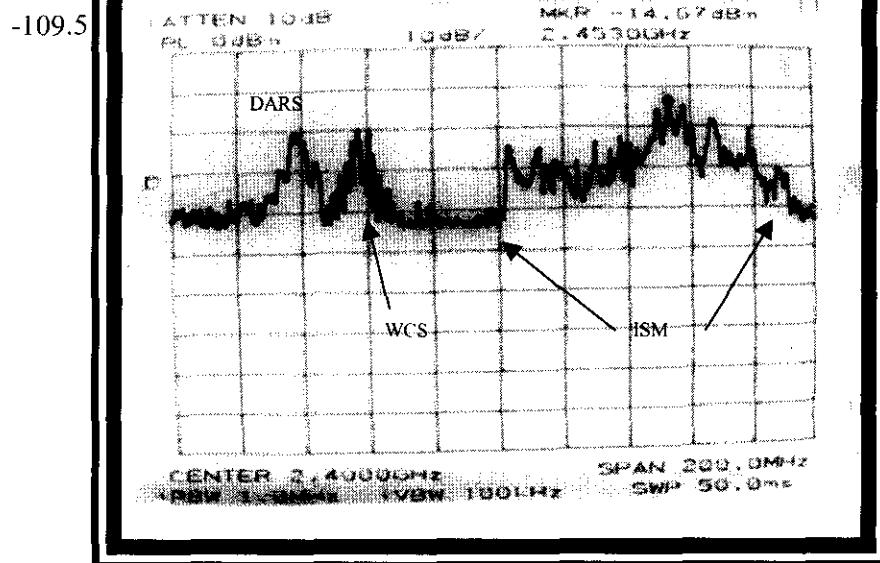
Leesburg, Virginia

Reference
Level
dBW_I

Azimuth 0-360°

XMX Radio

With High-Pass and Tunable
Filters

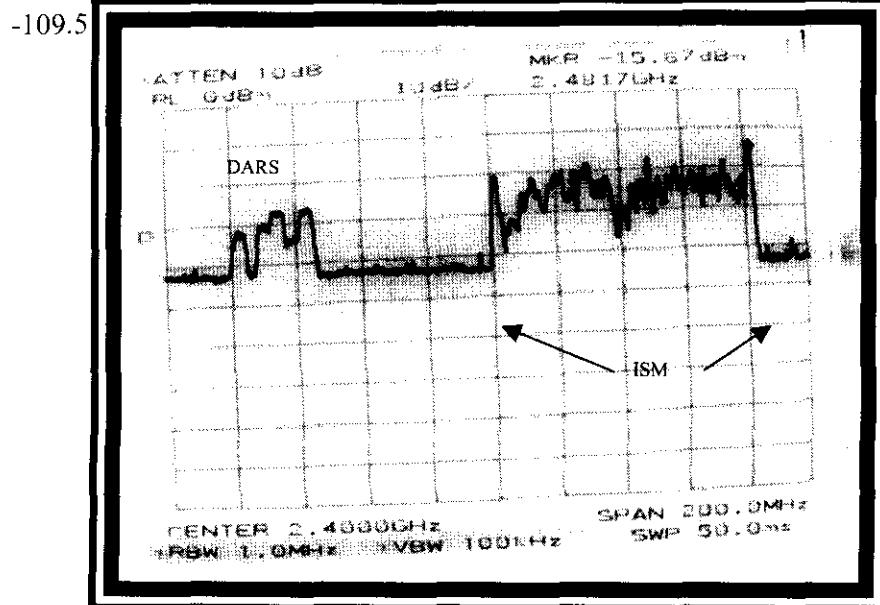


(A)

Reference
Level
dBW_I

Date: January 21, 2002
Time of Day: 1000
Ant. Polarization: V
Ant. Centerline: 10 Ft.

Full Antenna Sweep



Date: January 21, 2002
Time of Day: 1005
Ant. Polarization: H
Ant. Centerline: 10 Ft.

Full Antenna Sweep

Figure 3.5-3 RF Spectrum Analysis

Reference
Level
 dBW_1

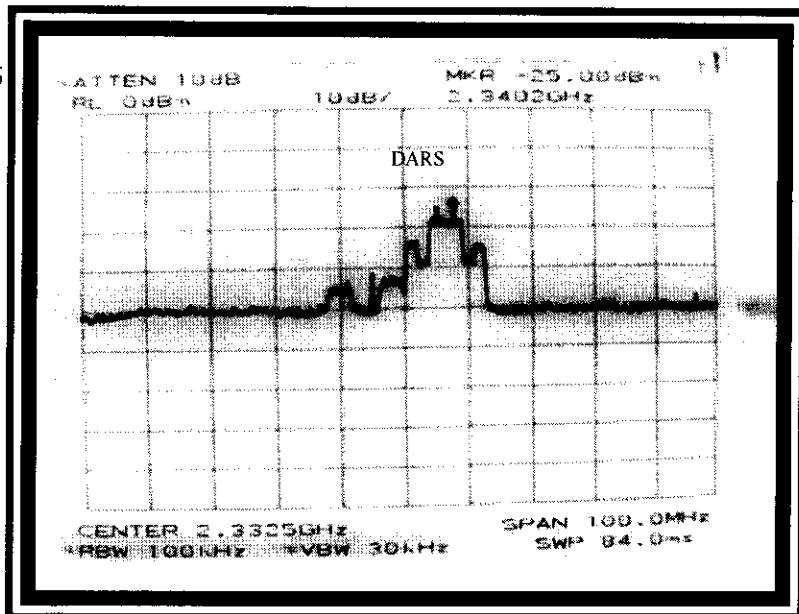
Leesburg, Virginia

Azimuth 0-360°

XM Radio

With High-Pass and Tunable
Filters

-109.5



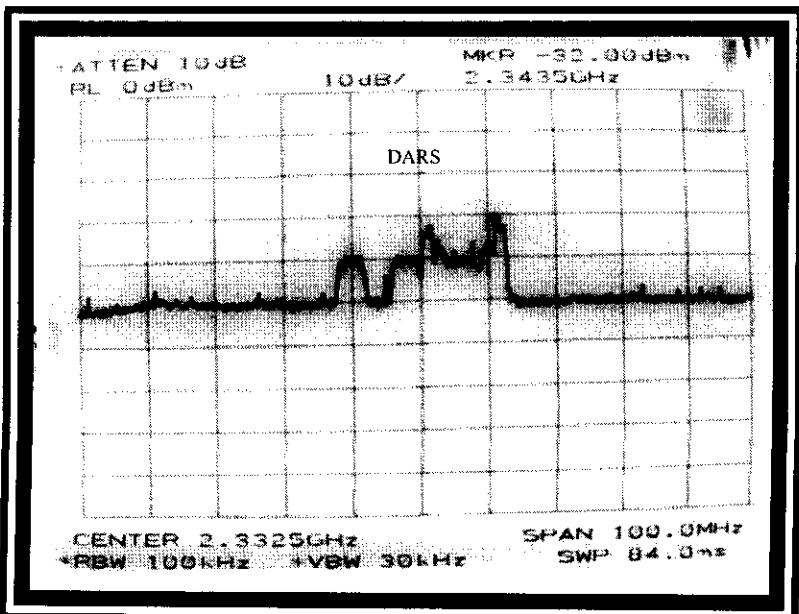
(A)

Reference
Level
 dBW_1

Date: January 21, 2002
Time of Day: 1015
Ant. Polarization: V
Ant. Centerline: 10 Ft.

Full Antenna Sweep

-109.5



(B)

Date: January 21, 2002
Time of Day: 1020
Ant. Polarization: H
Ant. Centerline: 10 Ft.

Full Antenna Sweep

Figure 3.5-4 RF Spectrum Analysis

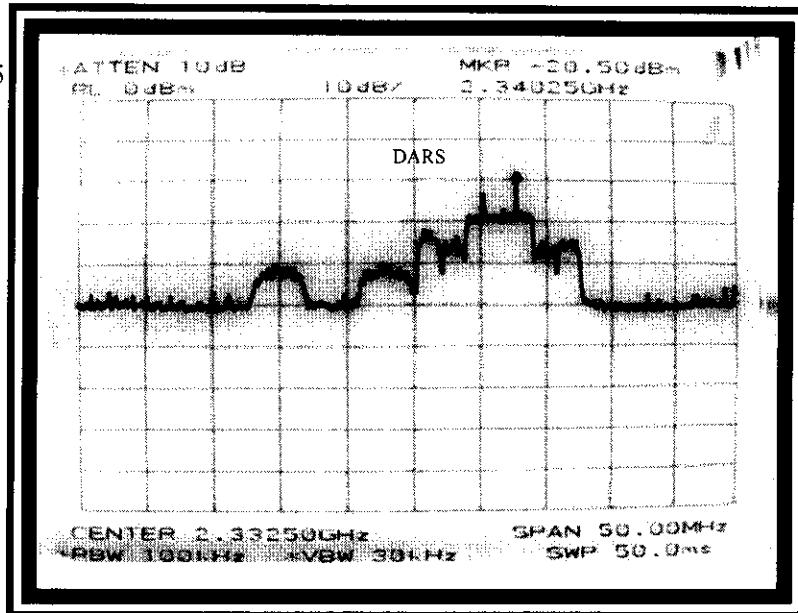
Reference
Level
 dBW_1

Leesburg, Virginia

Azimuth 0-360°

XMX Radio

-109.5



(A)

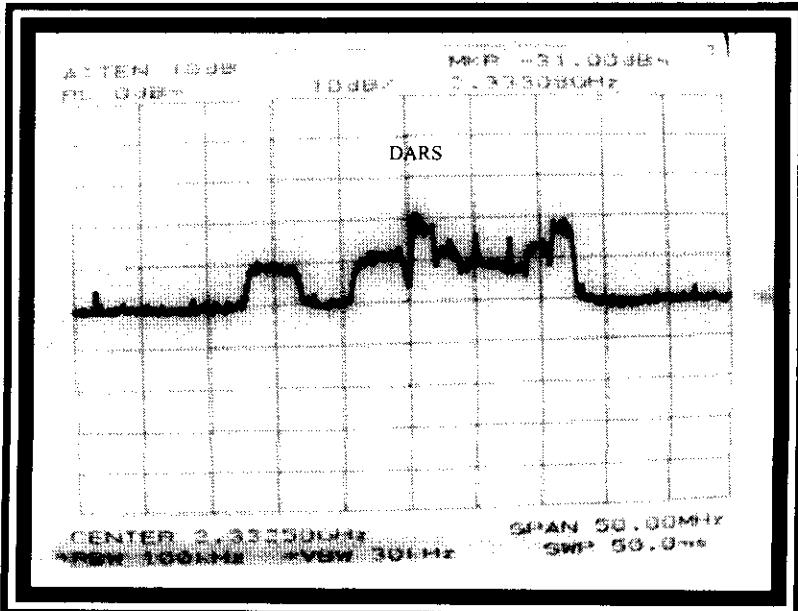
Reference
Level
 dBW_1

With High-Pass and Tunable
Filters

Date: January 21, 2002
Time of Day: 1025
Ant. Polarization: V
Ant. Centerline: 10 Ft.

Full Antenna Sweep

-109.5



(B)

Date: January 21, 2002
Time of Day: 1030
Ant. Polarization: H
Ant. Centerline: 10 Ft.

Full Antenna Sweep

Figure 3.5-5 RF Spectrum Analysis

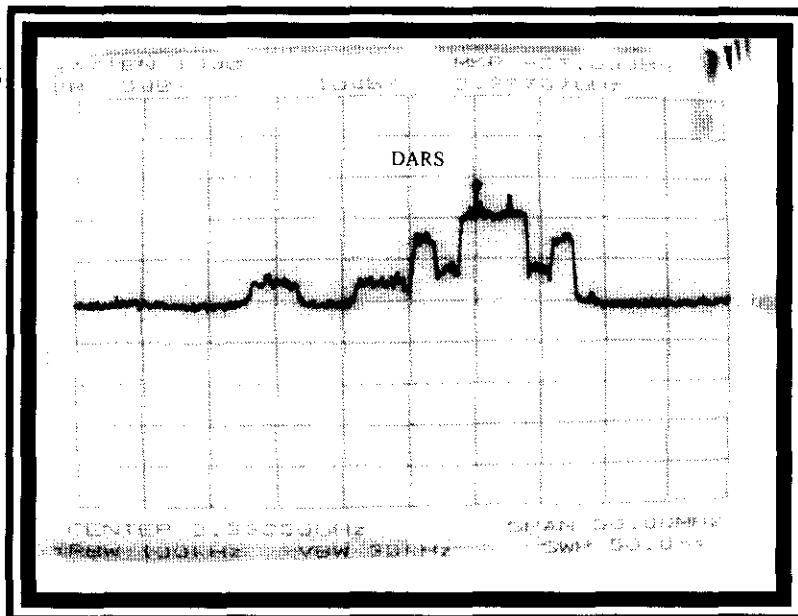
Leesburg, Virginia

Reference
Level
 dBW_1

XM Radio

Azimuth 96°

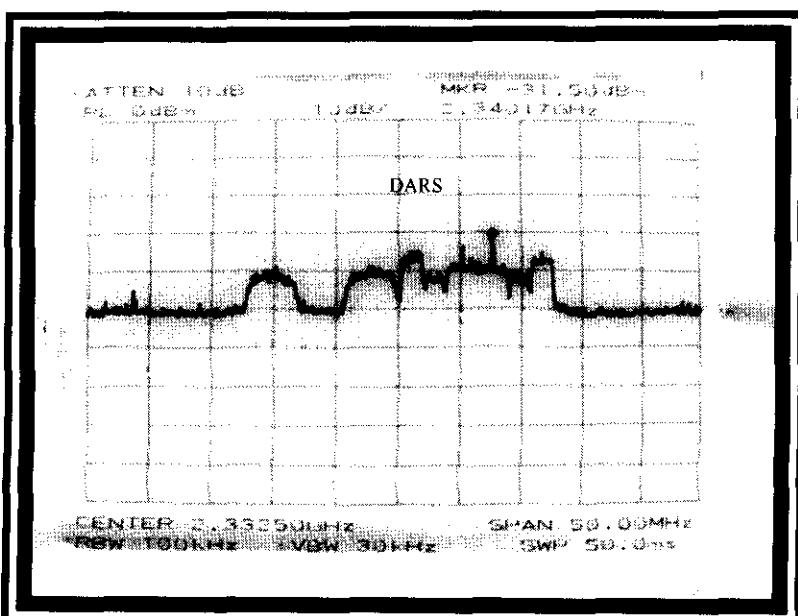
-109.5



(A)

Reference
Level
 dBW_1

-109.5



(B)

With High-Pass and Tunable
Filters

Date: January 21, 2002

Time of Day: 1040

Ant. Polarization: V

Ant. Centerline: 10 Ft.

Date: January 21, 2002

Time of Day: 1045

Ant. Polarization: H

Ant. Centerline: 10 Ft.

Figure 3.5-6 RF Spectrum Analysis

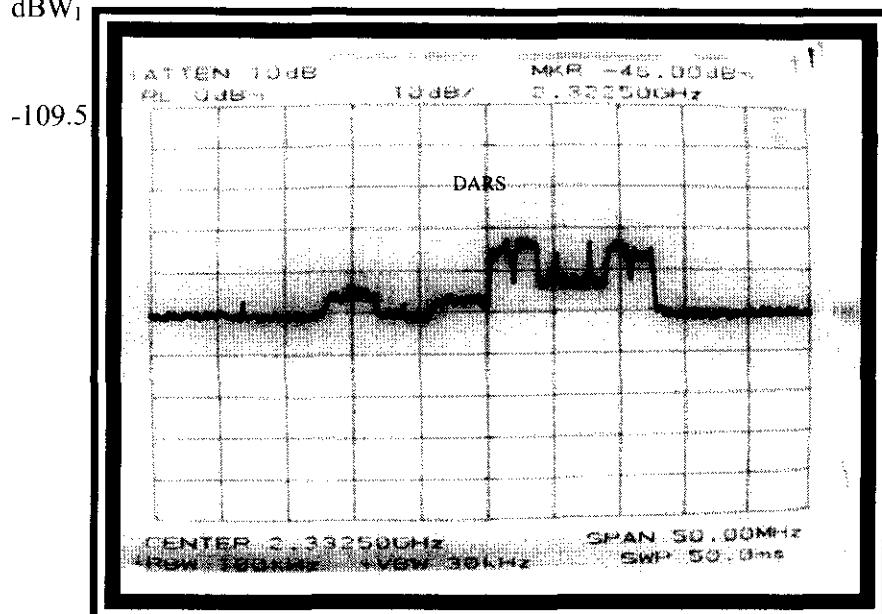
Leesburg, Virginia

Reference
Level
 dBW_1

Azimuth 233°

XM Radio

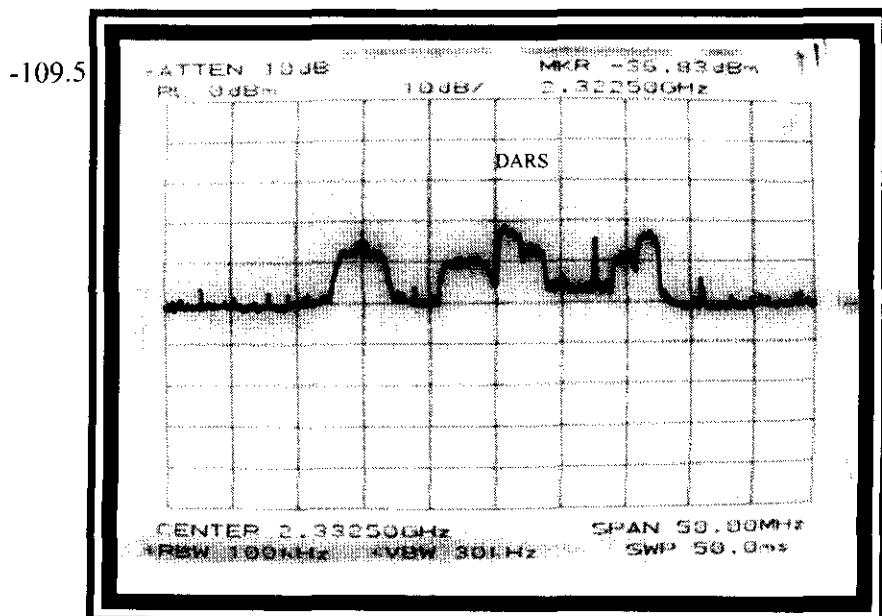
With High-Pass and Tunable
Filters



(A)

Reference
Level
 dBW_1

Date: January 21, 2002
Time of Day: 1055
Ant. Polarization: V
Ant. Centerline: 10 Ft.



(B)

Date: January 21, 2002
Time of Day: 1055
Ant. Polarization: V
Ant. Centerline: 10 Ft.

Figure 3.5-7 RF Spectrum Analysis

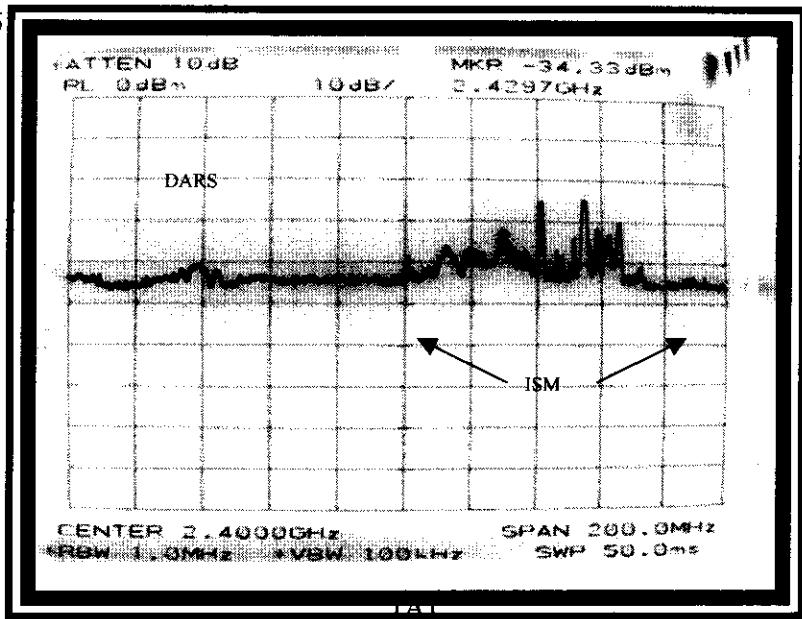
Reference
Level
dBW₁

XM Radio

Azimuth 31°

-109.5

With High-Pass and Tunable
Filters

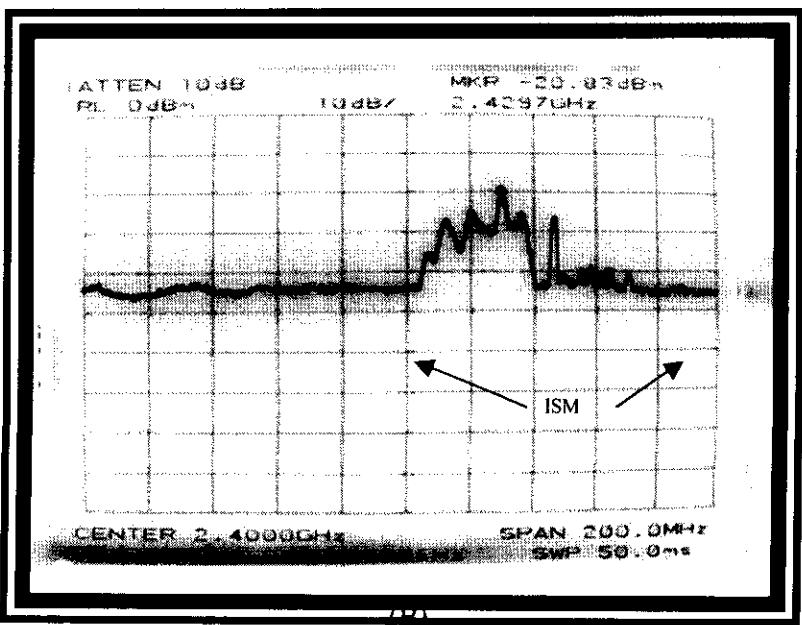


Reference
Level
dBW₁

-109.5

Date: January 21, 2002
Time of Day: 1105
Ant. Polarization: V
Ant. Centerline: 10 Ft.

(A)



(B)

Date: January 21, 2002
Time of Day: 1110
Ant. Polarization: H
Ant. Centerline: 10 Ft.

Figure 3.5-8 RF Spectrum Analysis

SECTION 3.6

Sterling, VA

SECTION 3.6

DATA PRESENTATION

The following section contains the tables, site photos, and spectrum photos pertaining to the site location measured.

3.6 XM Radio – Sterling, VA

- o Table 3.6-1 presents a site data sheet including all pertinent site information.
- o Figure 3.6-1 contains topographic map denoting the test location throughout the measurements
- o Figures 3.6-2 are the photographs depicting the test site.
- o Figures 3.6-3 through 3.6-8 are the RF spectrum photographs depicting the interference environment at the test site.

TABLE 3.6-1
MEASUREMENT SITE DATA SHEET

1. SYSTEM NAME: XM Radio

2. CITY AND STATE: Sterling, VA

3. SITE IDENTIFICATION: Rte. 7 & Palisades Pkwy

4. COORDINATES:
(NAD 1983) LATITUDE: 39° 02' 02.6" N
 LONGITUDE: 77° 24' 26.6" W

5. SITE TYPE: Suburban

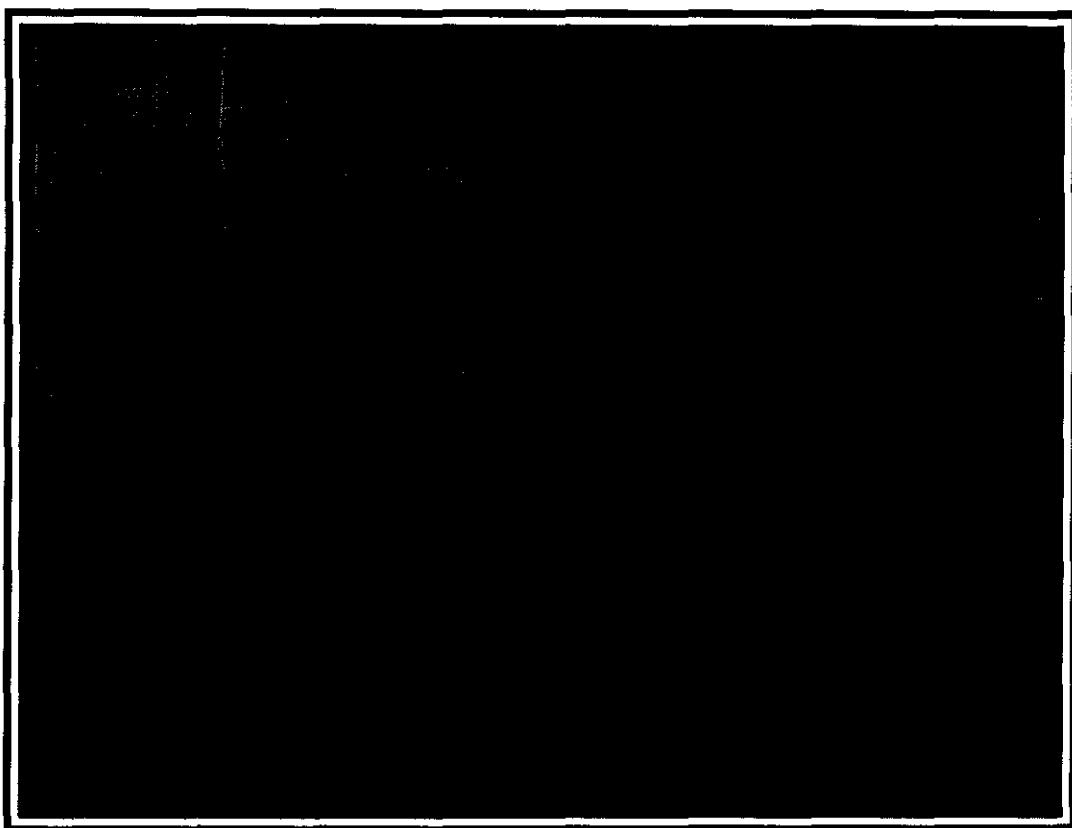
6. MEASUREMENT DATES & TIMES: January 17, 2002 0930-1130



XM RADIO

FIGURE 3.6-1

North



East

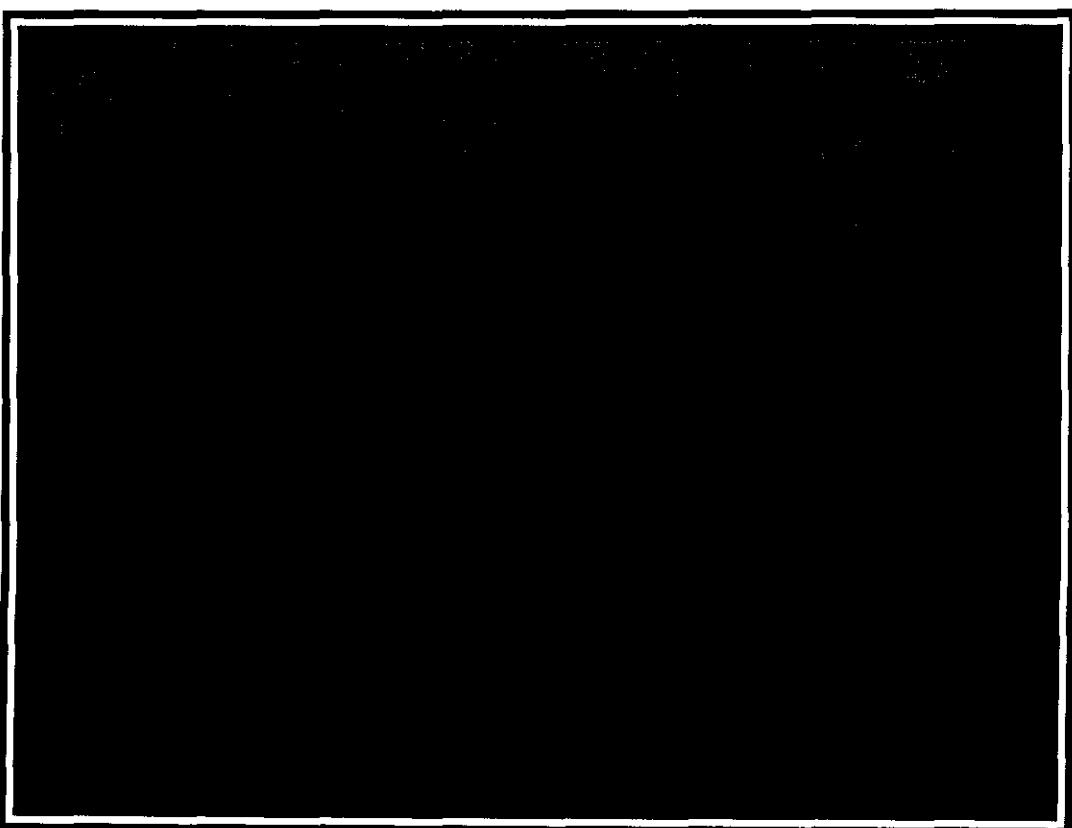
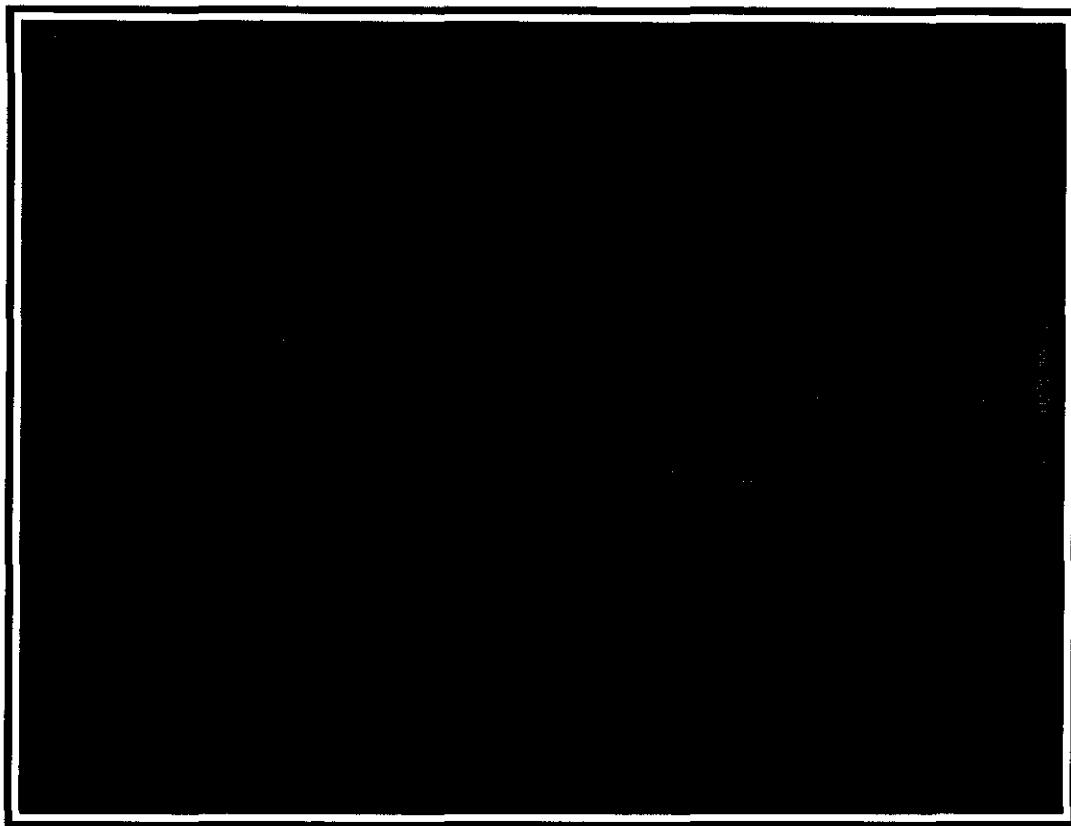


Figure 3.6-2 Measurement Site Photographs

South



West

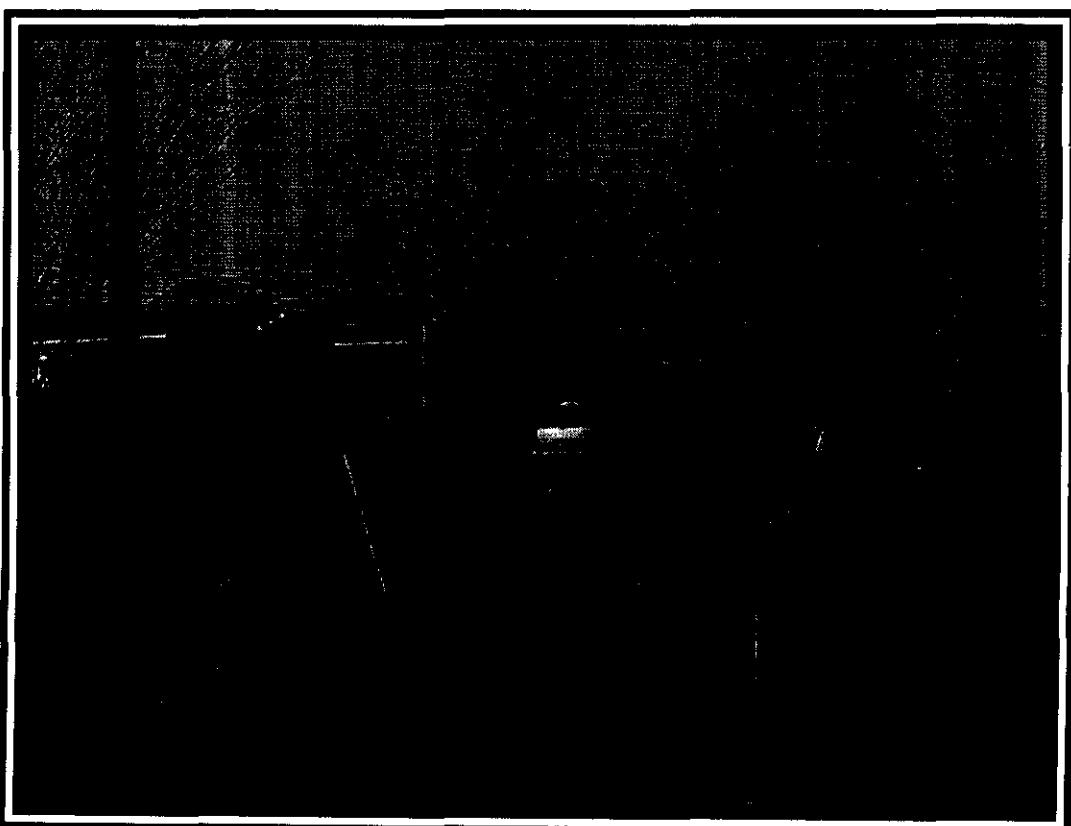
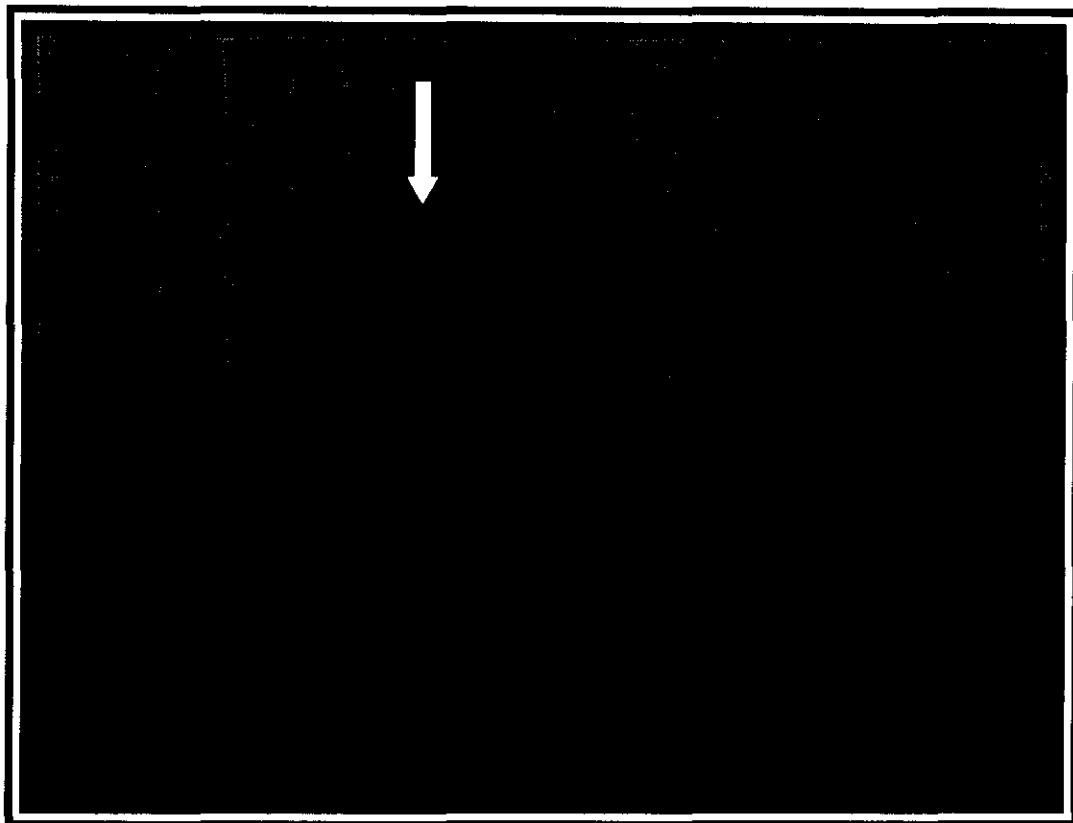


Figure 3.6-2 (cont.) Measurement Site Photographs

Az 79°



Az 223°

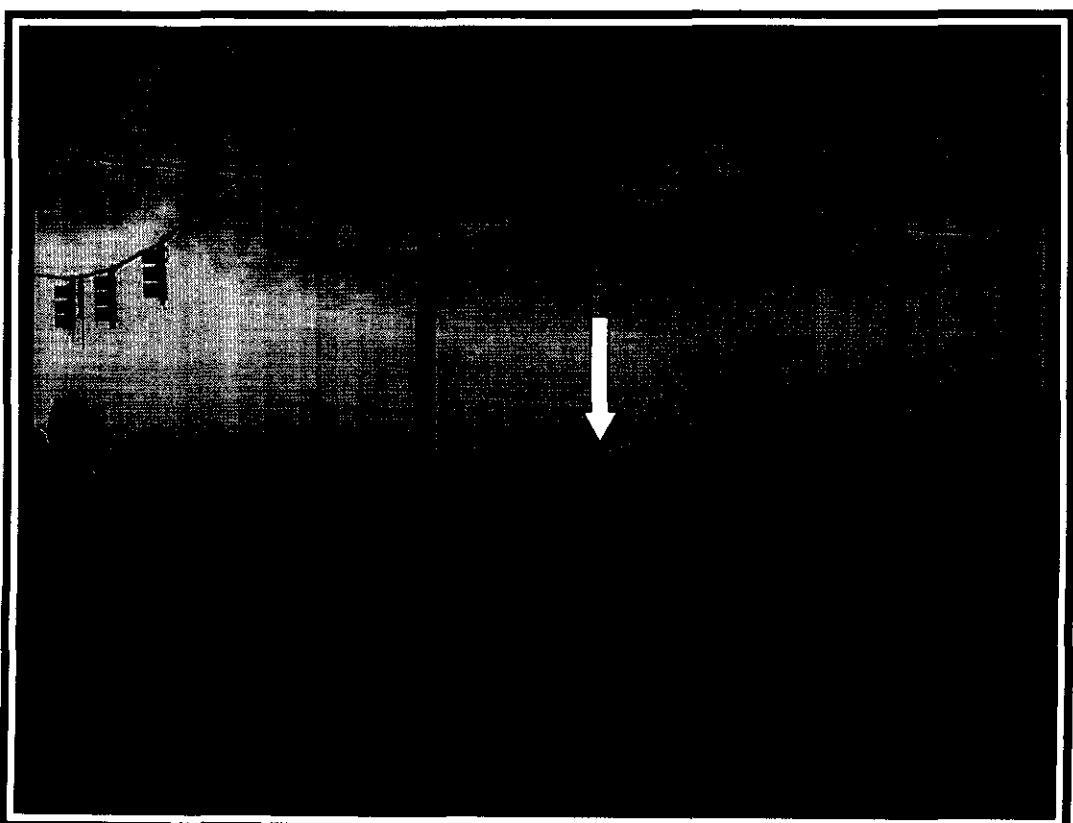


Figure 3.6-2 (cont.) Measurement Site Photographs

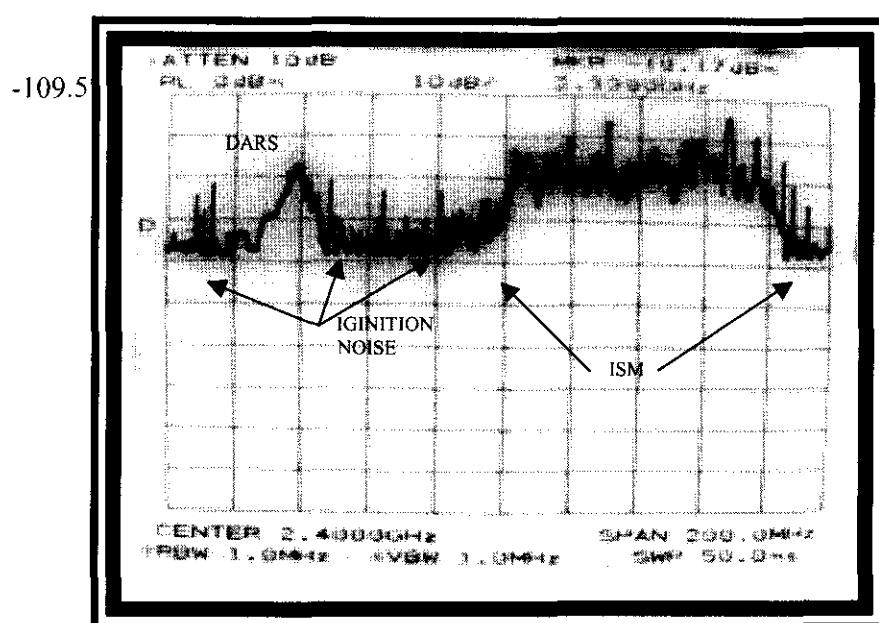
Sterling, Virginia

Azimuth 0-360°

Reference
Level
dBW₁

XM Radio

With High-Pass and Tunable
Filters

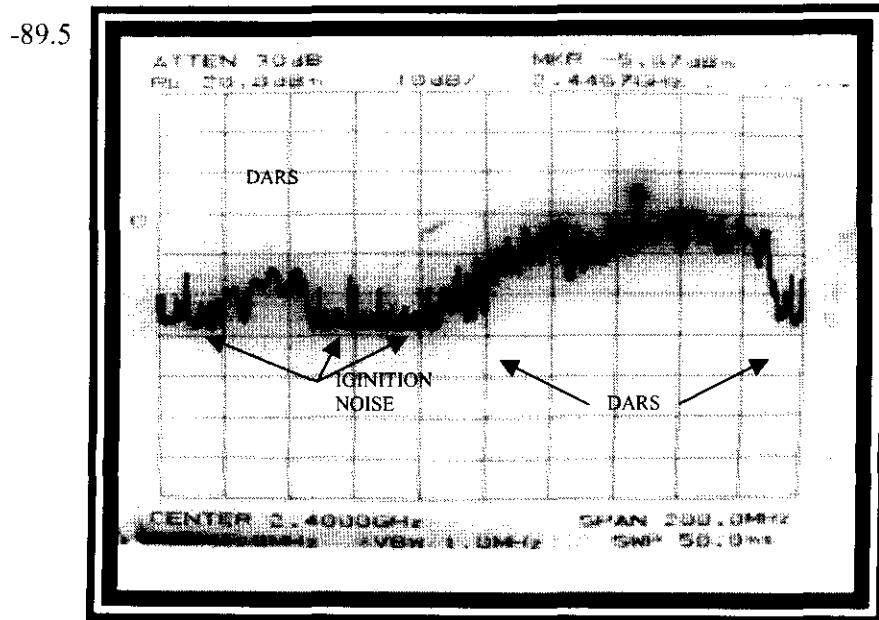


(A)

Reference
Level
dBW₁

Date: January 17, 2002
Time of Day: 0945
Ant. Polarization: V
Ant. Centerline: 10 Ft.

Full Antenna Sweep



(B)

Date: January 17, 2002
Time of Day: 0950
Ant. Polarization: H
Ant. Centerline: 10 Ft.

Full Antenna Sweep

Figure 3.6-3 RF Spectrum Analysis

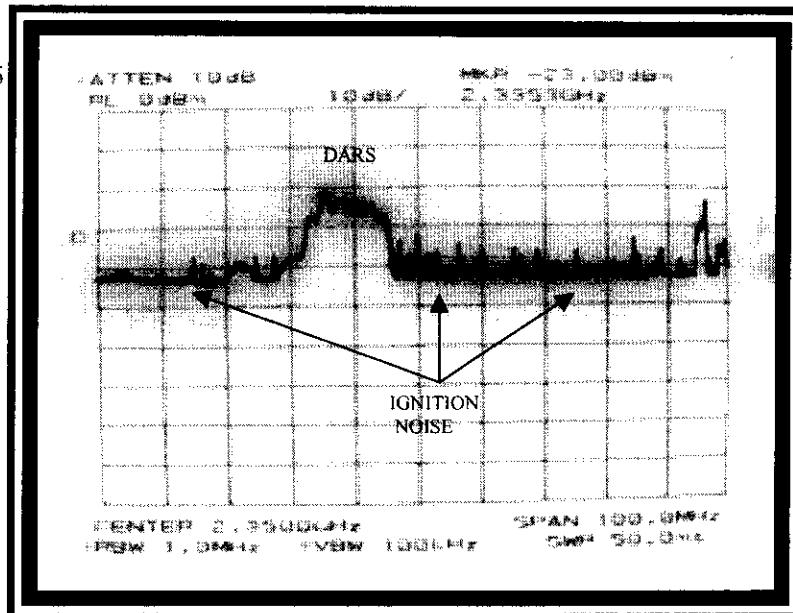
Reference
Level
 dBW_1

Sterling, Virginia

Azimuth 0-360°

XMX Radio

-109.5



With High-Pass and Tunable
Filters

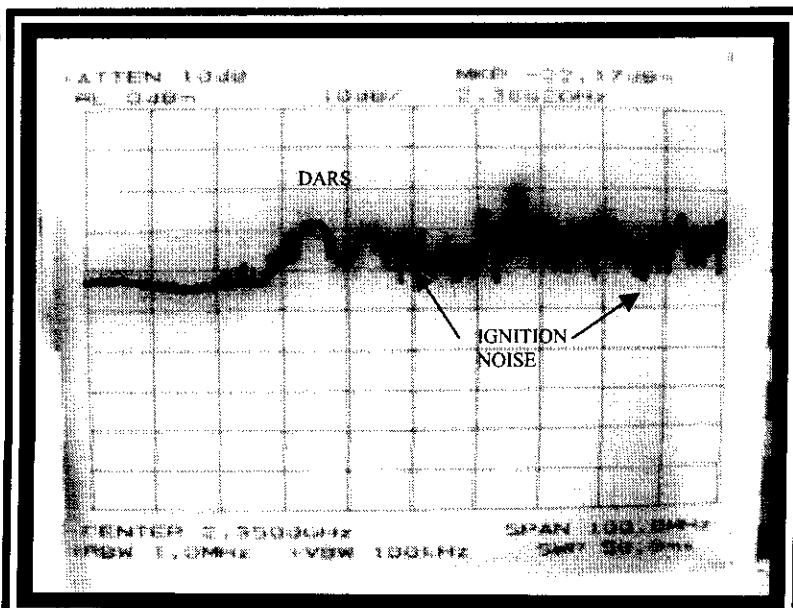
Date: January 17, 2002
Time of Day: 1000
Ant. Polarization: V
Ant. Centerline: 10 Ft.

Full Antenna Sweep

Reference
Level
 dBW_1

(A)

-109.5



Date: January 17, 2002
Time of Day: 1005
Ant. Polarization: H
Ant. Centerline: 10 Ft.

Full Antenna Sweep

(B)

Figure 3.6-4 RF Spectrum Analysis

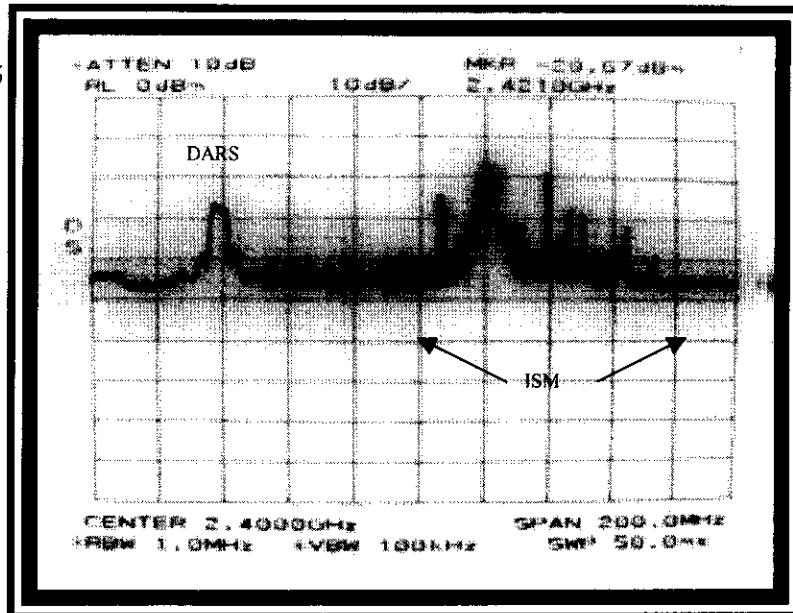
Reference
Level
 dBW_1

Sterling, Virginia

Azimuth 79°

XM Radio

-109.5



With High-Pass and Tunable
Filters

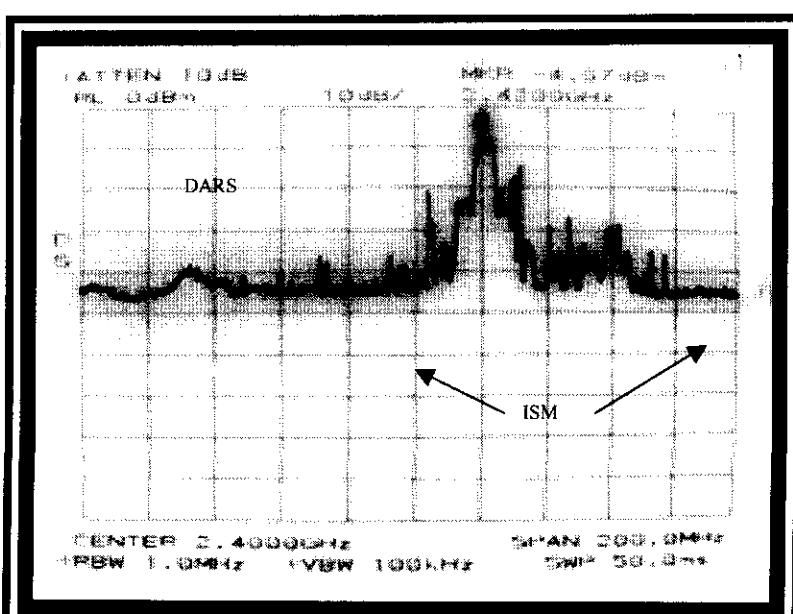
Date: January 17, 2002
Time of Day: 1015
Ant. Polarization: V
Ant. Centerline: 10 Ft.

Antenna pointed in direction of
a telecommunications tower.

Reference
Level
 dBW_1

(A)

-109.5



Date: January 17, 2002
Time of Day: 1020
Ant. Polarization: H
Ant. Centerline: 10 Ft.

Full Antenna Sweep

(B)

Figure 3.6-5 RF Spectrum Analysis

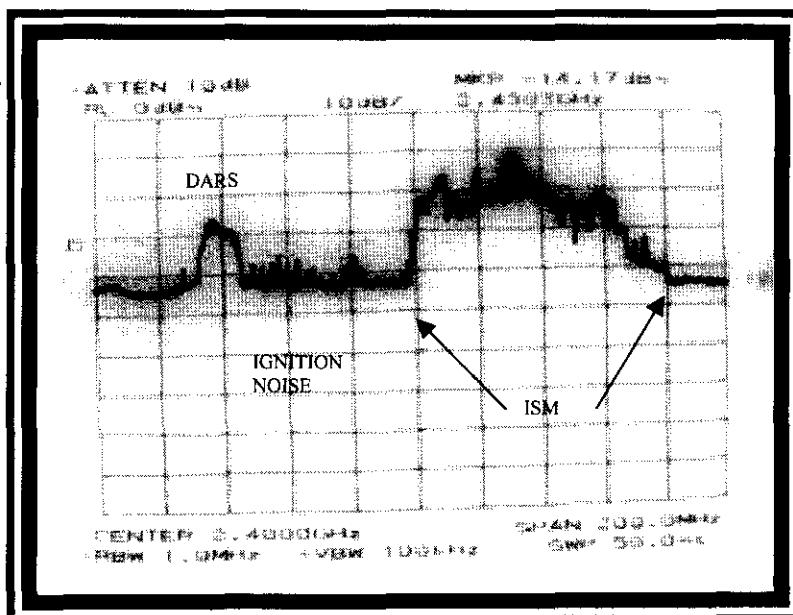
Sterling, Virginia

Azimuth 223°

Reference
Level
 dBW_1

XM Radio

-109.5



With High-Pass and Tunable
Filters

Date: January 17, 2002

Time of Day: 1030

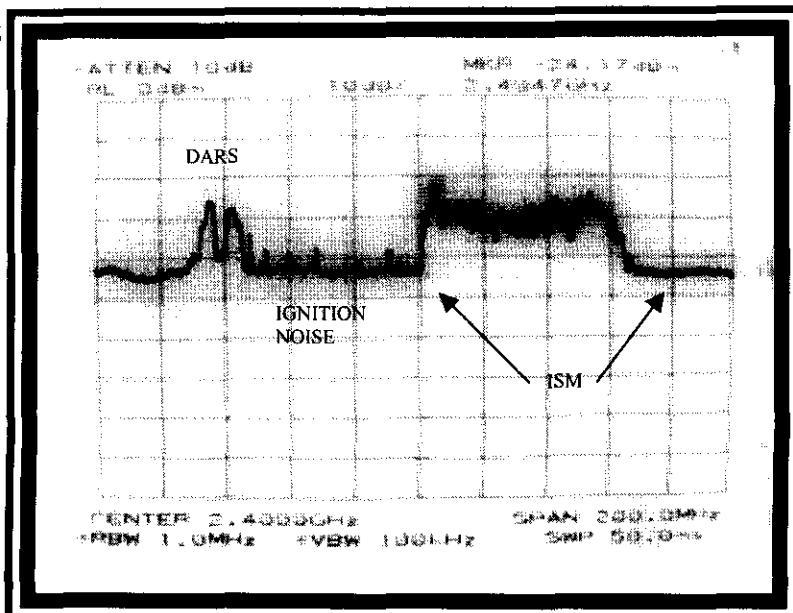
Ant. Polarization: V

Ant. Centerline: 10 Ft.

Reference
Level
 dBW_1

(A)

-109.5



Date: January 17, 2002

Time of Day: 1035

Ant. Polarization: H

Ant. Centerline: 10 Ft.

(B)

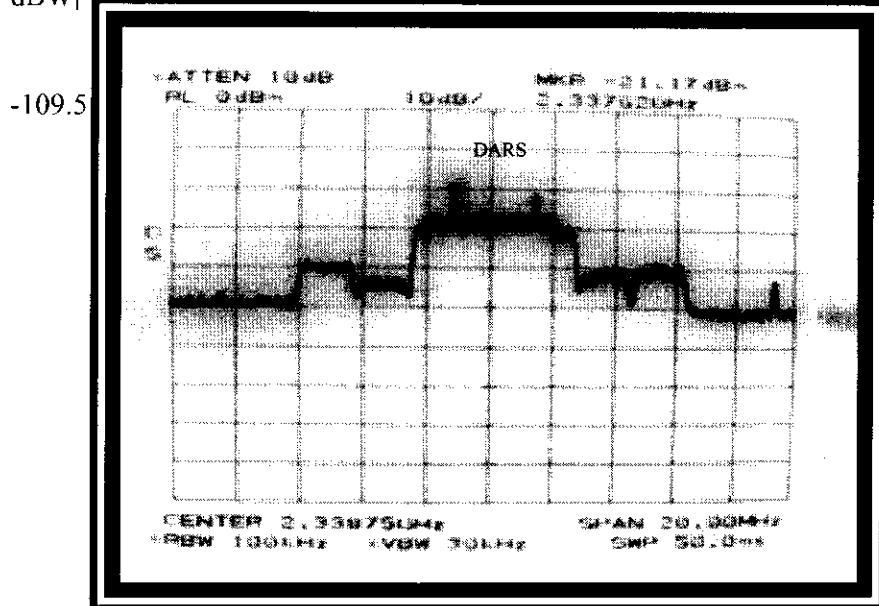
Figure 3.6-6 RF Spectrum Analysis

Sterling, Virginia

Reference
Level
dBW₁

Azimuth 297°

XM Radio



With High-Pass and Tunable
Filters

Date: January 17, 2002

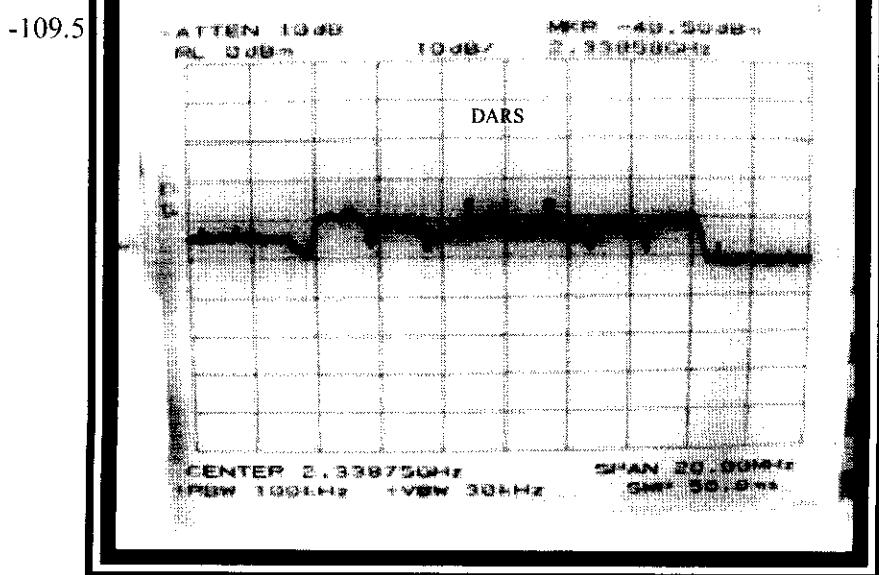
Time of Day: 1040

Ant. Polarization: V

Ant. Centerline: 10 Ft.

(A)

Reference
Level
dBW₁



Date: January 17, 2002

Time of Day: 1050

Ant. Polarization: H

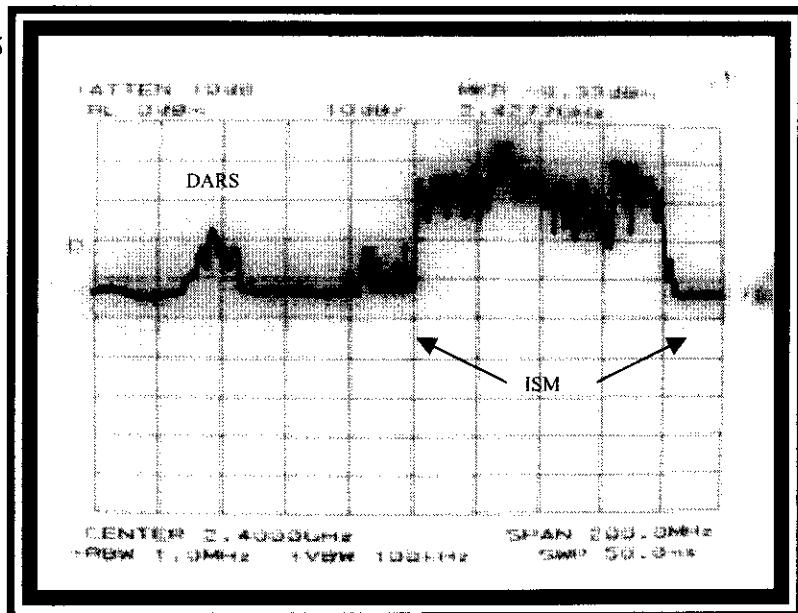
Ant. Centerline: 10 Ft.

(B)

Figure 3.6-7 RF Spectrum Analysis

Reference
Level
 dBW_1

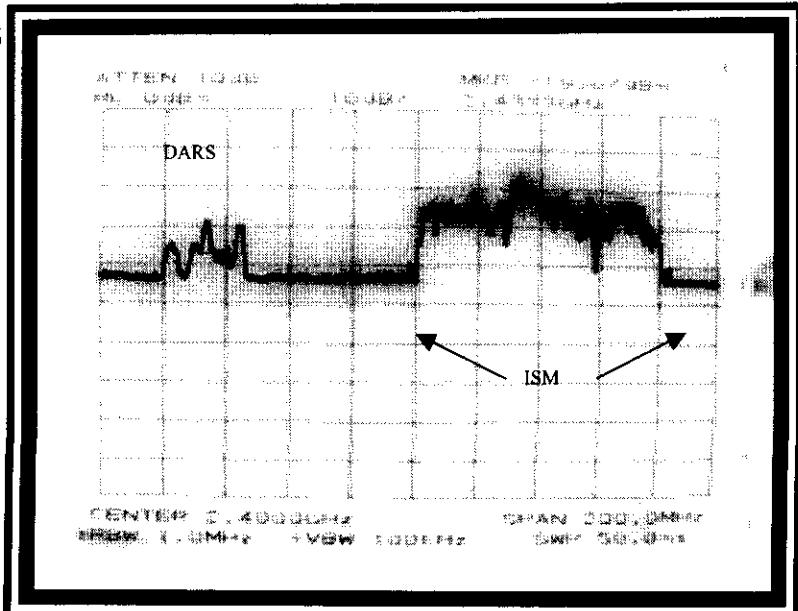
-109.5



(A)

Reference
Level
 dBW_1

-109.5



(B)

Sterling, Virginia

XMX Radio

Azimuth 315°

With Tunable and High-Pass
Filters

Date: January 17, 2002

Time of Day: 1055

Ant. Polarization: V

Ant. Centerline: 10 Ft.

Antenna pointed in the direction
of a Burger King Restaurant

Figure 3.6-8 RF Spectrum Analysis

SECTION 3.7

Lucketts, VA

SECTION 3.7

DATA PRESENTATION

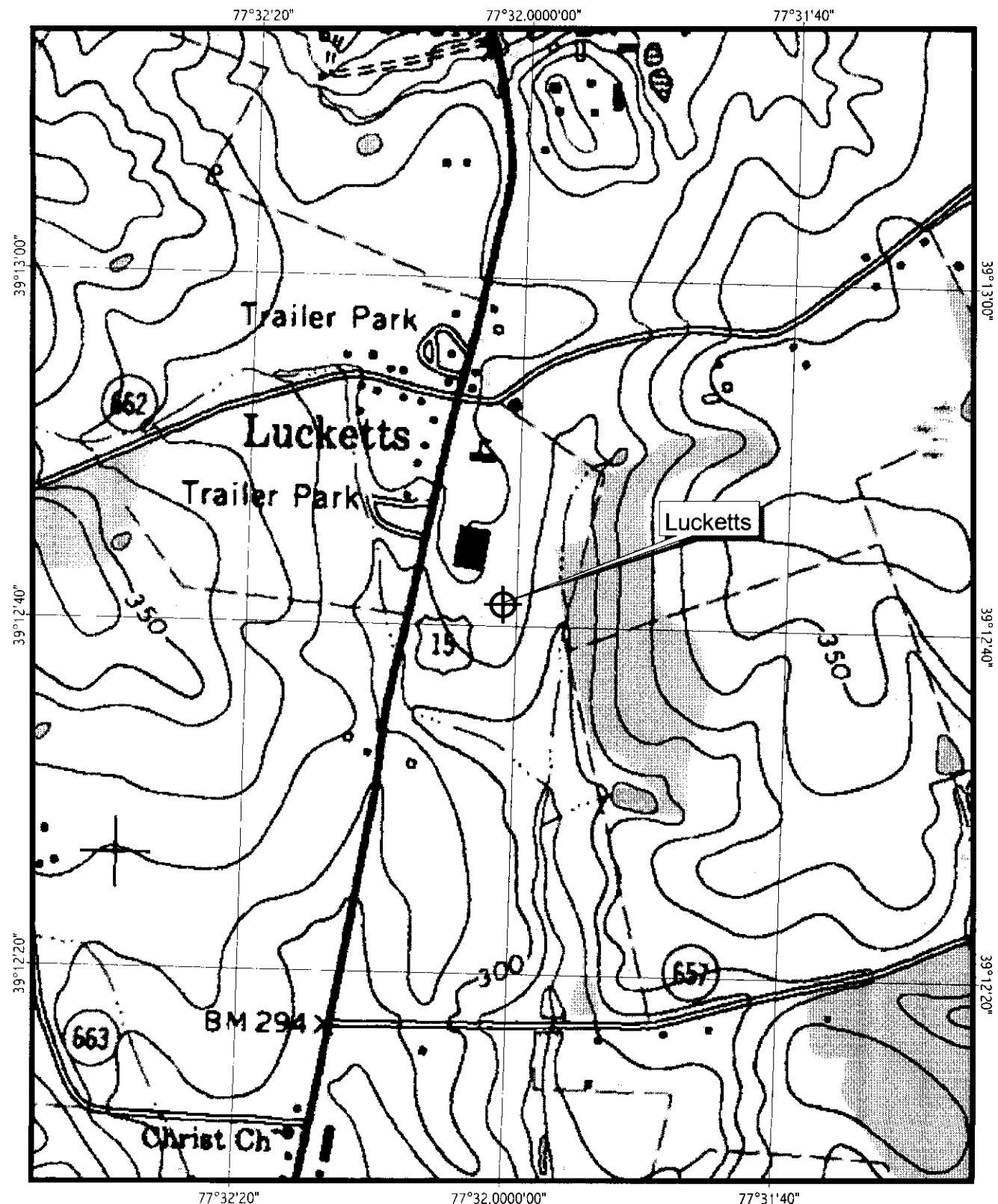
The following section contains the tables, site photos, and spectrum photos pertaining to the site location measured.

3.7 XM Radio – Luckett's, VA

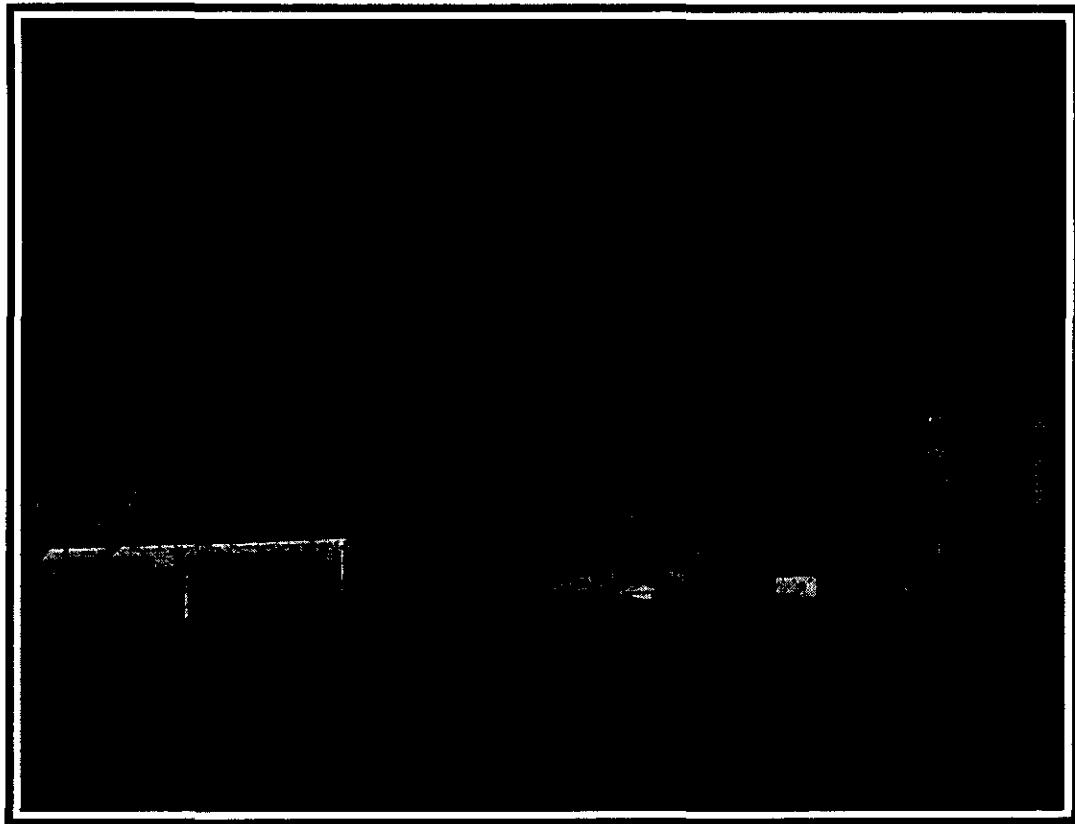
- o Table 3.7-1 presents a site data sheet including all pertinent site information.
- o Figure 3.7-1 contains topographic map denoting the test location throughout the measurements
- o Figures 3.7-2 are the photographs depicting the test site.
- o Figures 3.7-3 through 3.7-5 are the RF spectrum photographs depicting the interference environment at the test site.

TABLE 3.7-1
MEASUREMENT SITE DATA SHEET

1. SYSTEM NAME:	XM Radio
2. CITY AND STATE:	Lucketts, VA
3. SITE IDENTIFICATION:	Lucketts
4. COORDINATES: (NAD 1983)	LATITUDE: $39^{\circ} 12' 45.1''$ N LONGITUDE: $77^{\circ} 32' 00.8''$ W
5. SITE TYPE:	Rural
6. MEASUREMENT DATES & TIMES:	January 18, 2002 1600-1645



North



East

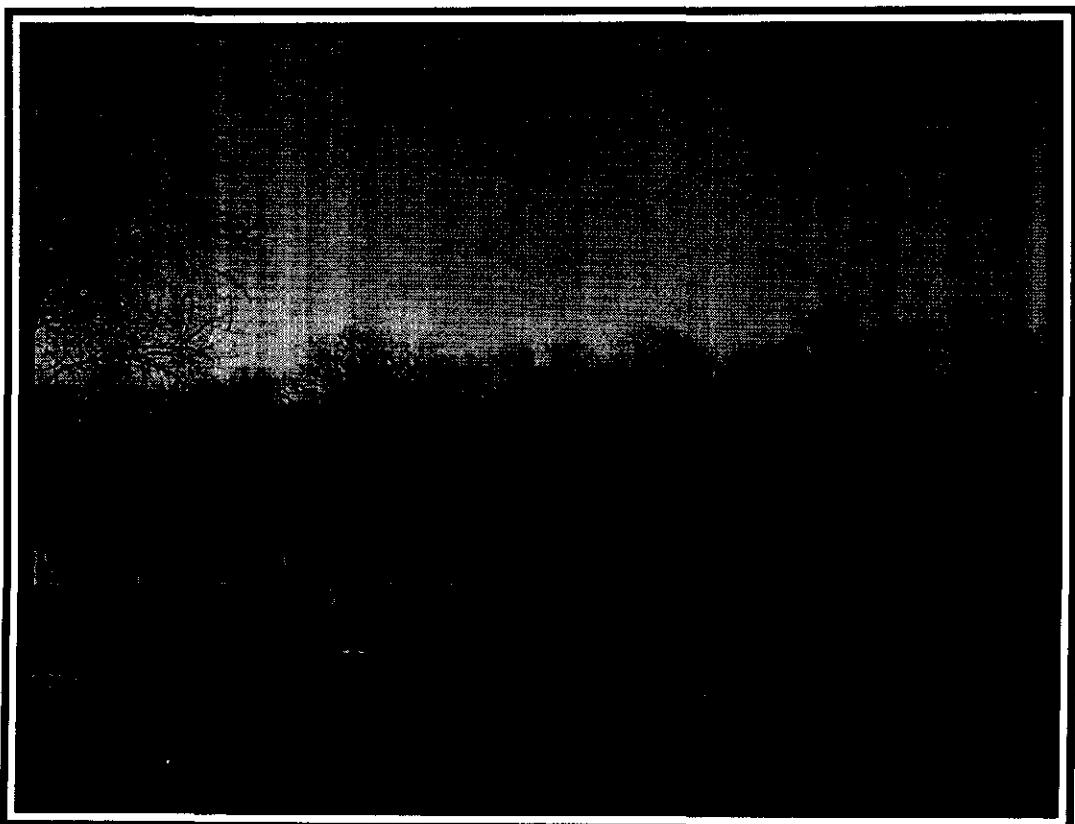
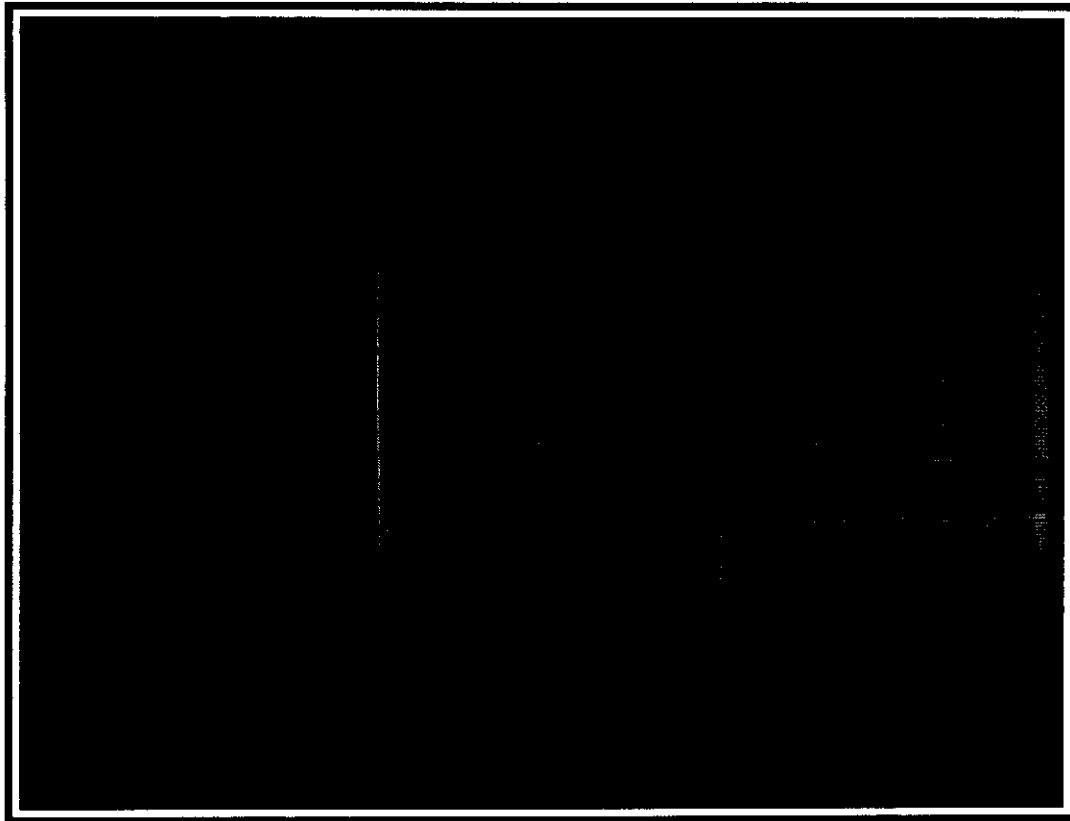


Figure 3.7-2 Measurement Site Photographs

South



West

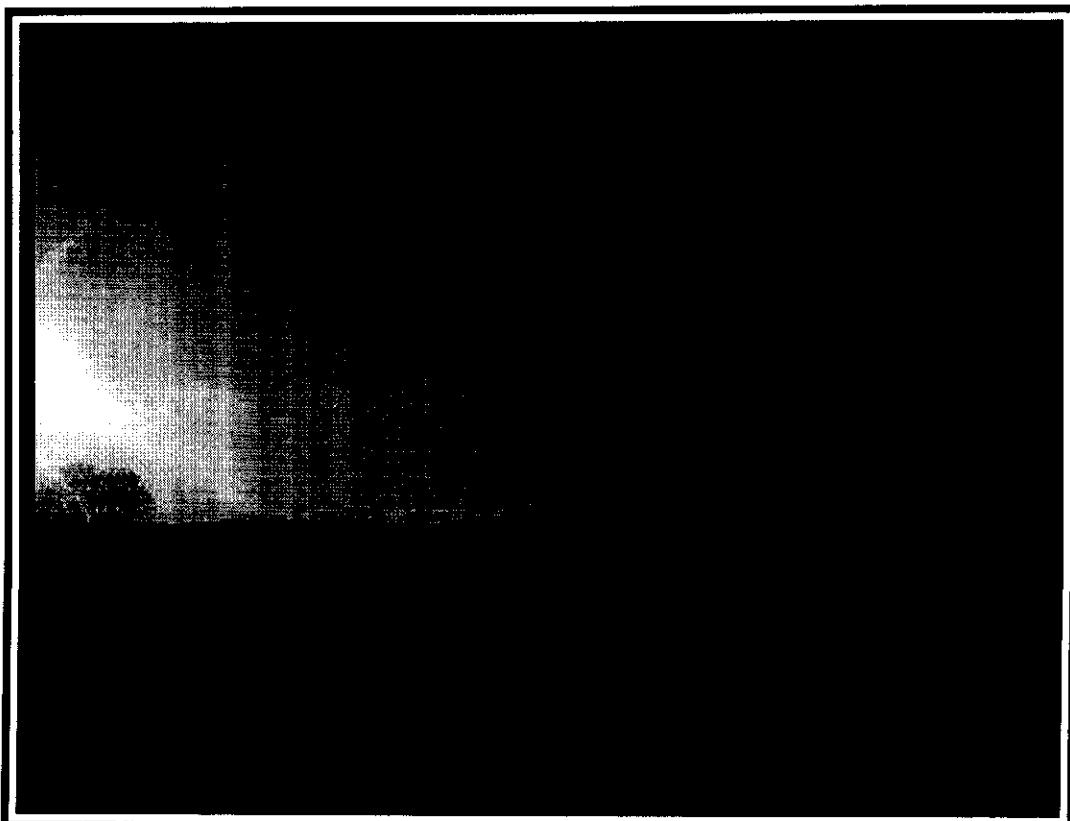


Figure 3.7-2 (cont.) Measurement Site Photographs

Az 190°

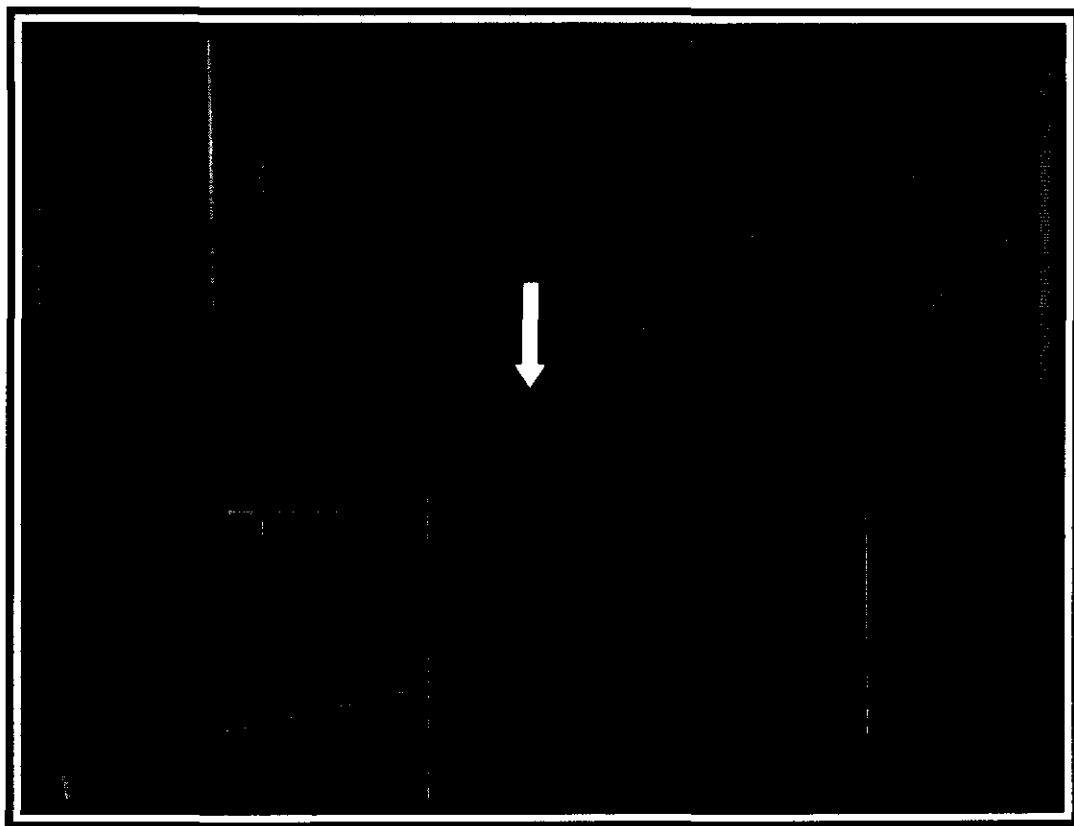


Figure 3.7-2 (cont.) Measurement Site Photographs

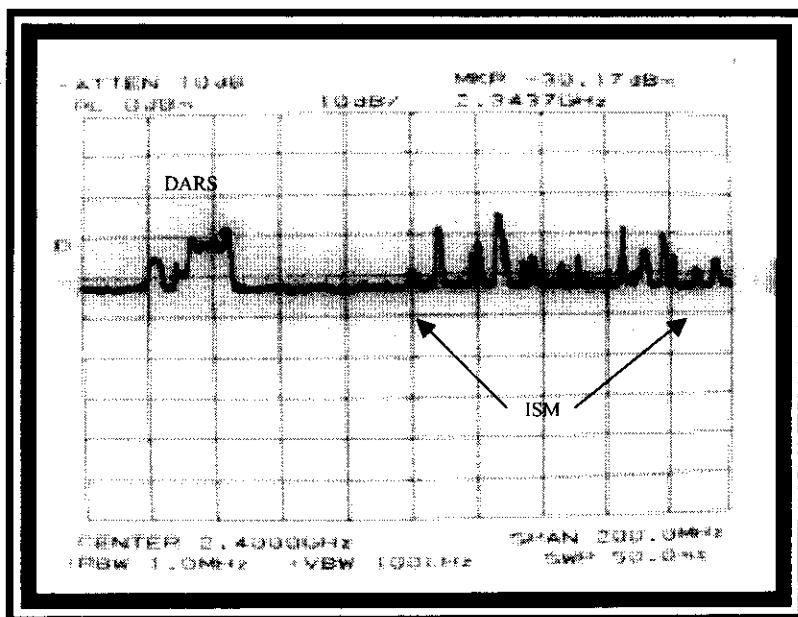
Lucketts, Virginia

Reference
Level
 dBW_1

XM Radio

Azimuth 0-360°

-109.5



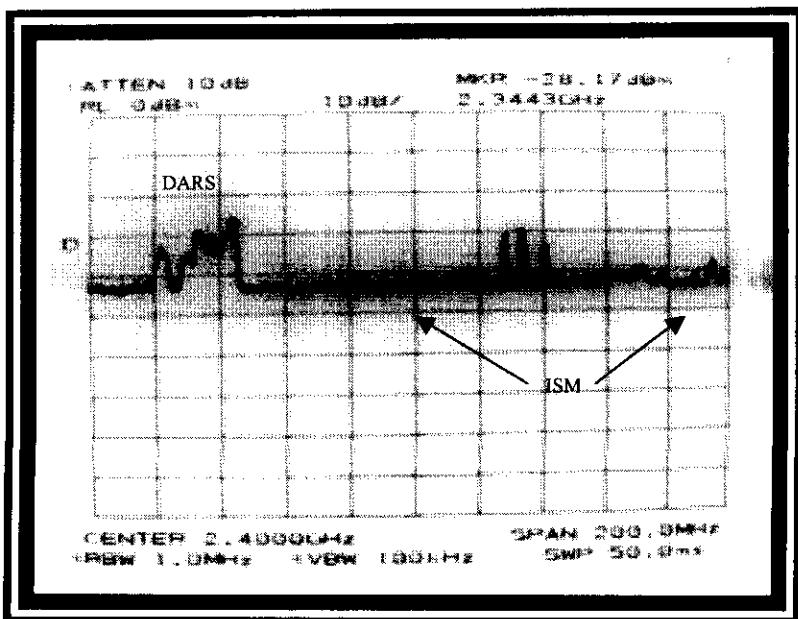
High-Pass Filter Only

Date: January 18, 2002
Time of Day: 1605
Ant. Polarization: V
Ant. Centerline: 10 Ft.

Reference
Level
 dBW_1

(A)

-109.5



Date: January 18, 2002
Time of Day: 1610
Ant. Polarization: H
Ant. Centerline: 10 Ft.

(B)

Figure 3.7-3 RF Spectrum Analysis

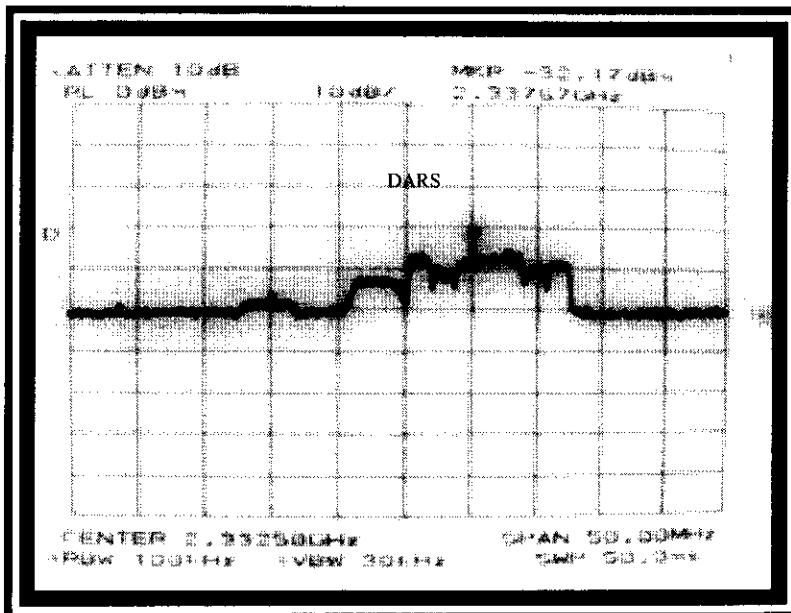
Reference
Level
dBW₁

Lucketts, Virginia

Azimuth 0-360°

XM Radio

-109.5



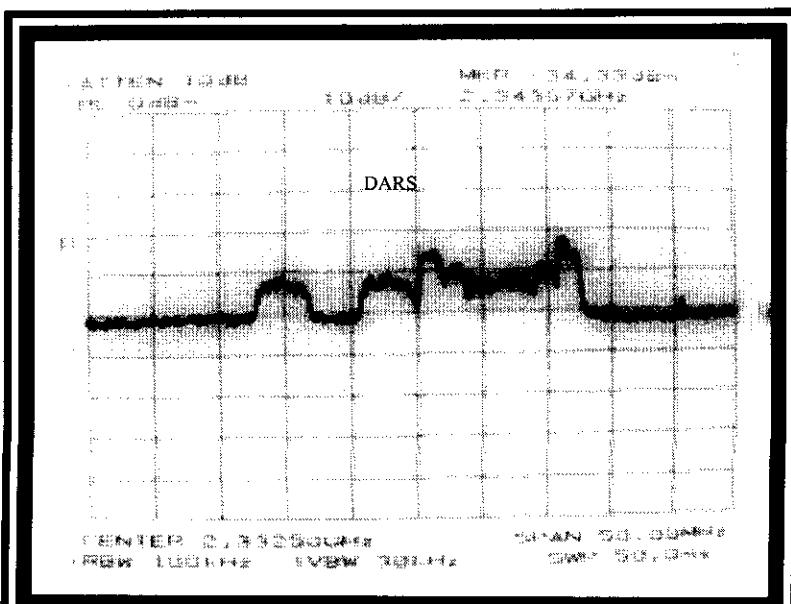
High-Pass Filter Only

Date: January 18, 2002
Time of Day: 1620
Ant. Polarization: V
Ant. Centerline: 10 Ft.

Reference
Level
dBW₁

(A)

-109.5



Date: January 18, 2002
Time of Day: 1625
Ant. Polarization: H
Ant. Centerline: 10 Ft.

Full Antenna Sweep

(B)

Figure 3.7-4 RF Spectrum Analysis

Lucketts, Virginia

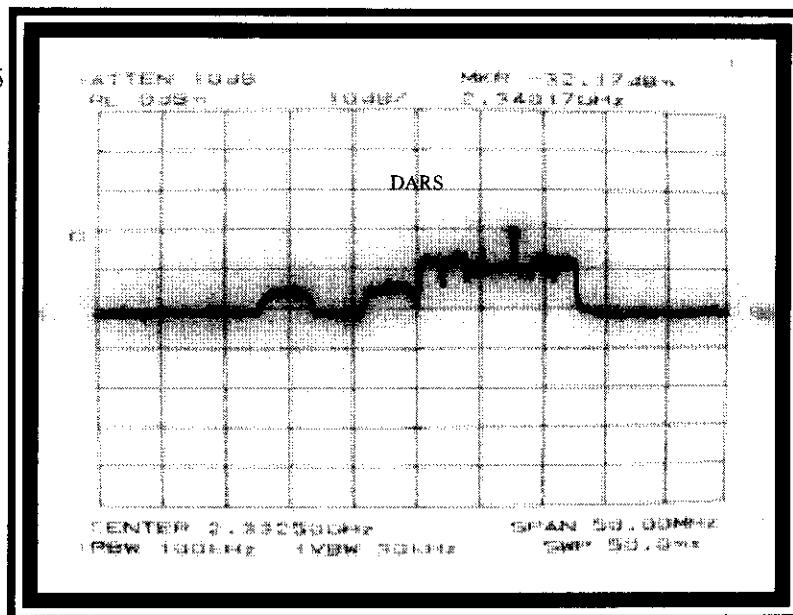
Azimuth 190°

Reference
Level
 dBW_1

XM Radio

-109.5

High-Pass Filter Only

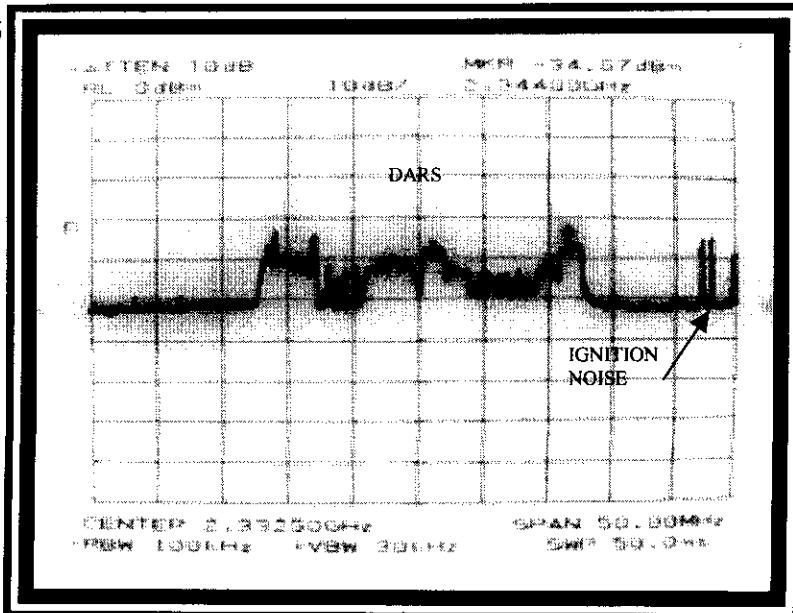


(A)

Reference
Level
 dBW_1

-109.5

Date: January 18, 2002
Time of Day: 1630
Ant. Polarization: V
Ant. Centerline: 10 Ft.



(B)

Figure 3.7-5 RF Spectrum Analysis